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African Bird Club

Working for birds and conservation in Africa

The African Bird Club—working for birds and conservation in Africa

We are the charity dedicated to the conservation of birds across Africa. We work with people in Africa providing support for the study of birds and conservation with the aim of improving the status of both migratory and resident species.

We work with individuals and local groups throughout Africa supporting and promoting:

- Conservation projects with a focus on researching, monitoring and protecting African birds
- Conservation education
- Surveys and assessments of lesser-known regions
- The effective communication of information about African birds

Registered Charity No 1053920

ABC Membership

Membership is open to all. Annual subscription rates are:

Individual	Europe & Africa: UK£21	Rest of the World: UK£23
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Student	Europe & Africa: UK£12	Rest of the World: UK£14
Supporting	UK£35 minimum	
Life	UK£500	

To join or for further details please visit the ABC website (where there are secure online payment facilities) or write to the Membership Secretary—see contact information below.

ABC Website

http://www.africanbirdclub.org

Photographers and artists

ABC is always looking for drawings and photos to publish in the Bulletin. If you are interested in contributing, please contact the Graphics Editor, Lionel Sineux, lionel.sineux@gmail.com

Contact ABC

African Bird Club, c/o BirdLife International, The David Attenborough Building, Pembroke Street, Cambridge CB2 3QZ, UK.
E-mail: • info@africanbirdclub.org • website: http://www.africanbirdclub.org

Further information can be obtained directly from individual Council members by writing to them at the Club's postal address, or by e-mail as follows:

Chairman Richard Charles • chairman@africanbirdclub.org
Secretary Phil Hyde • secretary@africanbirdclub.org
Treasurer Chris Spooner • treasurer@africanbirdclub.org
Bulletin Managing Editor Guy Kirwan • editor@africanbirdclub.org
Conservation Officer Chris Magin
• conservation@africanbirdclub.org
Information Officer Phil Hyde • info@africanbirdclub.org
Membership Secretary Alan Williams
• membership@africanbirdclub.org
Representatives Coordinator Nigel Birch
• reps@africanbirdclub.org
Corporate Sponsors Officer Richard Charles
• corporatesponsors@africanbirdclub.org

ABC particularly wishes to thank its Corporate Sponsors for their invaluable financial support in 2016: Akamba, Ashanti African Tours, Birdfinders, Birding Africa, Birding Ecotours, Birdquest, Field Guides, Lawsons, Letaka Safaris, Limosa, Nature's Wonderland Safaris, Rockjumper, Safariwise, Safari Consultants, Sunbird and Venture Uganda.

The Bulletin of the African Bird Club

The Bulletin of the ABC provides a forum for news, letters, notices, recent publications, expedition results, reviews and publication of studies on African birds by contributors from throughout the world. Publication of results in the Bulletin of the ABC does not preclude publication of final results as journal papers either by the ABC or elsewhere. No material should, however, be submitted simultaneously to the Bulletin of the ABC and to any other publication.

Brief notes for contributors appear elsewhere in this Bulletin and further details are available from the Editor (editor@africanbirdclub.org).

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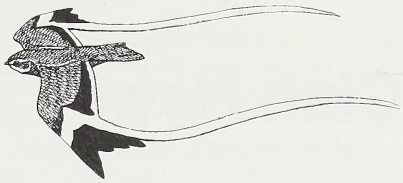

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Features

Club News

Compiled by Richard Charles and Phil Hyde

Taita Hills land lease—update

In March 2015 ABC announced its largest-ever single financial commitment to conservation—UK£25,000 towards the cost of leasing a part of the Taita Hills, habitat for the Critically Endangered Taita Apalis *Apalis fuscigularis*. The forest fragment at Msidunyi, which has recently undergone an accurate land survey, comprises 6 ha. Fencing of the area is planned to protect it from local human and livestock encroachment. The Royal Society for the Protection of Birds (RSPB), who is handling the ABC donation, is in the process of transferring funds to *Nature*Kenya (NK), and ABC will receive an annual progress report as a stipulation of the RSPB's yearly institutional support contract with NK. RSPB has reported that NK has recently secured US$295,000 from the Rainforest Trust to support land purchase in the Taita Hills, focusing on 30 ha of privately owned plots adjacent to Msidunyi, to create a forest corridor to further protect and enhance vital habitat for Taita Apalis. A few numbered, limited-edition prints of Martin Woodcock's painting of the Taita Apalis are still available for purchase via the ABC website. The original painting, generously donated by Martin to the Club in support of this venture, was very successfully auctioned at the British Birdwatching Fair, in 2015.

Madagascar Pochard fundraiser

At the British Birdwatching Fair, in 2015, ABC partnered the Wildfowl and Wetland Trust (WWT) to assist in their fundraising for the Critically Endangered Madagascar Pochard *Aythya innotata*. The appeal was assisted by the auction of an original painting of the species by Martin Woodcock, ABC Vice President, and the sale of limited edition prints

Figure 1. Richard Charles, ABC Chairman (left) and Martin Spray, CEO WWT, with a print of Martin Woodcock's painting of Madagascar Pochard *Aythya innotata* (Matt Neale/WWT)

Richard Charles, président de l'ABC (à gauche) et Martin Spray, PDG du Wildfowl and Wetland Trust, avec une reproduction d'un tableau de Martin Woodcock représentant le Fuligule de Madagascar *Aythya innotata* (Matt Neale/WWT)

of the same work. Additionally, donations, sales and attractions on the ABC stand raised a total UK£1,500. ABC Chairman, Richard Charles, was pleased to present a cheque for this sum to Martin Spray, CEO of WWT, at an event at WWT Martin Mere, Lancashire, on 20 October. Martin expressed his gratitude to the Club for its donation and for the opportunity to highlight an important area of WWT's work to some of their key invited supporters who were attending Martin Mere for the opening of the major new Discovery Hide. A few numbered, limited-edition prints of Martin Woodcock's painting of the Madagascar Pochard, as shown in Fig. 1, are still available for purchase via the ABC website. The original painting, again generously donated by Martin, was also auctioned at the British Birdwatching Fair.

ABC Trustee changes

Following the election of Richard Charles as Chairman at the 2015 AGM, Stephen Lowe, already a Trustee, has kindly assumed the post of Corporate Sponsors Officer. Alan Williams, who generously stepped in to fill the vital but vacant post of Membership Secretary, a position he held with distinction in past years, has now stepped down with the appointment of Heather Tarrant from 1 September 2015. Heather is based at Writtle College, Essex, and has extensive experience of membership management; we warmly welcome her to the Club. Ros Green has joined Council as an invited representative of Next Generation Birders (see below). Rodah Owaku has assumed a full-time appointment in forestry and has resigned from Council; we thank her for her contributions and wish her well in her new career.

Next Generation Birders (NGB) and ABC

The Club has initiated contact with NGB, an active and enthusiastic, largely web-based, group formed to provide 'a different perspective on birding through the eyes of a new generation'. We trust that ABC will be able to pass on knowledge and enthusiasm for African birds to the younger generation, while learning much from them about the needs and aspirations of young birders and ornithologists and how ABC can play its part in their realisation. Recognising that the Club can only prosper by attracting new, and especially younger, members, Council has invited Ros Green, a prominent NGB member currently undertaking postgraduate research

in field ornithology, to join us as NGB representative. We are delighted that she has accepted, and we look forward to a fruitful and collaborative future for both our organisations.

ABC Members' Day and AGM: Saturday 16 April 2016

Saturday 16 April 2016 sees the Club's 22nd Members Day and AGM held once again at the prestigious and, by then, upgraded Flett Lecture Theatre at the Natural History Museum, London. We hope to welcome our President, Tasso Leventis, to speak about the crisis facing African vultures, and Dr Shiiwua Manu, Director of the AP Leventis Ornithological Research Institute (APLORI) and recipient in 2014 of the Marsh Award for International Ornithology, to speak about their work. Further invited speakers include Dr Debbie Pain, Director of Conservation, Wildfowl & Wetlands Trust, speaking about conservation of Madagascar Pochard *Aythya innotata*, Niki Williamson, Senior Farmland Conservation Officer, Royal Society for the Protection of Birds, on European Turtle Dove *Streptopelia turtur* research in Senegal, Dr Luca Borghesio, University of Illinois at Chicago, who led the original ABC-funded research of Taita Apalis *Apalis fuscigularis* habitat, and our Vice President, Keith Betton, on the birds of São Tomé & Príncipe. Please make every effort to join us for what promises to be a first-class meeting.

ABC website developments

The major development in 2015 has been the reconstruction of the African Bird Image Database (AFBID). In *Bull. ABC* 22: 133, we described the serious problems that we had experienced with the previous version of AFBID. These included the deletion of the image master file by our host provider, and the subsequent recovery of most of the images and the move to a new host. As a result of these issues and the fact that AFBID had been operational for some ten years using old technology, ABC Council concluded that the best way forward would be to rebuild the site using the latest software. We completed a selection process and chose an Australian developer, Duc Tran, to assist with the work.

The new design and development phases were completed by Duc Tran and a comprehensive series of tests was undertaken in July–August. The new AFBID was formally launched in late September at its new address http://africanbirdclub.org/afbid/. The major changes evident to the user are the more modern and consistent look, coupled with the capability to display larger and higher quality images.

Feedback has been good and several photographers have added new and improved images. At the time of writing, the database contains more than 24,000 images of 2,180 species. As new and better images are added, we will continue our 'gentle cull' of some of the older and less good images.

We have asked for suggestions for improvement from ABC members and photographers, and are compiling a list of such requests with a view to producing a version 2 if and when funds permit.

AFBID has taken most of our resources during 2015, although there have been some changes to the ABC website at http://africanbirdclub.org/, the most visible of which is the display of news items on the home page and their integration with Twitter feeds. Work has continued to update the country checklists and we expect these to be available by the time that you read this.

Additionally, work with Southmedia on the reduction of spam has proved extremely successful, and the Important News box now retains items for as long as we wish, rather than being pushed down the list by more recent material.

Chris Abrams and John Caddick

ABC strategy to 2020

The ABC Council meeting on 20 October 2015, held at the Royal Society of Medicine, London, was devoted almost exclusively to a review of the validity and progress of our strategic plan through to 2020, and to identify priority ambitions for the coming year. Led by Paul Buckley and Nigel Birch, Council was greatly assisted by the active presence of our Vice Presidents, Martin Woodcock and Keith Betton, senior former Council member and webmaster John Caddick, and by extensive written contributions from our President, Tasso Leventis.

The strategy includes a number of top-level outcomes that we aim to achieve by 2020. In brief, the first four of these focus primarily on our external ambitions: to ensure the funding of at least 20 high-quality, high-impact conservation projects per year; to work actively with a range of other public and private agencies to promote conservation and conservation awareness in Africa; to mentor and increase capacity among African conservationists; and to further establish ABC as a recognised source of knowledge about African birds.

The remaining four outcomes will focus on ensuring good governance and management of the organisation: to increase membership in the UK and Europe/rest of the world and especially in Africa; to maintain current levels of support for ABC operations, and to expand conservation grants; ensure that the best person in each African country (and other countries) is representing ABC well to their citizens; and to maintain current high standards of governance and improve membership administration.

Not all of these outcomes will require equal amounts of work. While some are relatively new, exploratory activities, our fourth external outcome masks the extraordinary and dedicated work already undertaken to maintain and develop the ABC website, photographic database and to produce this bulletin. Detailed work is underway by Council members and others to plan priorities and practical strategies to achieve the outcomes described. Members will be kept updated on our progress.

Also identified was the need to further enhance relationships with our regular generous donors and benefactors, and to further our network of representatives in Africa and around the world. We plan for a significant input to and attendance at the next Pan-African Ornithological Congress in Senegal. Finally, amongst many pressing conservation priorities, we have identified the critical need to assist with raising awareness of and practical support for the plight of the continent's vultures, given dramatic declines that have left at least six species in danger of extinction.

Paul Buckley and Nigel Birch

ABC Country Representatives

The Club currently has Representatives in 43 countries: 32 in Africa and 11 outside the continent. The most recent recruits to the network are Fatai Aina representing Benin, Michel Louette for the Comoros and Friedemann Vetter for Germany. We take this opportunity to welcome our new representatives and to thank all for their hard work on behalf of local ABC members. Their contact details and those of the others can be found inside the Bulletin back cover. There you will also find a list of countries for which we are seeking representatives. If you are interested, or know someone who might be interested, please contact Nigel Birch, the Country Representative Liaison Officer (reps@africanbirdclub.org).

Nigel Birch

ABC/BirdQuest Conservation Tour to São Tomé and Príncipe: 2018

We are excited to announce the possibility of an exceptional tour, designed especially for ABC members and made possible through the generosity of Mark Beaman and BirdQuest together with tour leader Mark Van Beirs, to São Tomé and Príncipe on 14–21 January 2018. The tour will be structured for up to nine participants (minimum four) and will generate significant income for the ABC Conservation Fund. The tour will offer eight days (seven nights) exclusively on the two islands seeking their fascinating endemics. The price per person, including inter-island flights, will be UK£2,390, subject to final confirmation nine months prior to departure. Reservations can be made now by visiting the BirdQuest website: www.birdquest-tours.com. To whet your appetite, Pete Morris of BirdQuest offers us an alluring image of São Tomé Scops Owl *Otus hartlaubi* (Fig. 2), whilst Keith Betton's presentation at the ABC Annual Meeting (see above) will undoubtedly confirm a compelling case to fix this tour in your 2018 diary.

Figure 2. São Tomé Scops Owl / Petit-duc de São Tomé *Otus hartlaubi* (Pete Morris)

African Bird Club *Conservation Fund*

New Awards—October 2015

The Conservation Committee reviewed 26 proposals ahead of the October 2015 ABC Council meeting, and recommended four for funding. Council agreed to fund all four projects totalling UK£7,017—for which ABC found UK£3,881 from sponsors. Brief details of the successful proposals appear below.

Community birding and conservation in Uganda

The Kibale Forest Schools Program (KFSP), a Ugandan-registered NGO, works with government primary schools located along approximately one-third of the boundary of Kibale National Park (KNP). In 2014 a small pilot 'Community Birding Programme' was tested in eight schools, to introduce Ugandan students and teachers living around KNP to birds and bird habitats in their local communities. Via one classroom workshop and a field trip led by professional local bird guides, 252 students were taught to identify common birds while learning more about bird biology, habitat and species conservation, and how to participate in online bird censuses. Emily Otali of KFSP received a Conservation Award of UK£1,983 to build on this, by improving the content of the programme and expanding it to reach up to 700 children in 14 schools. The award was two-thirds funded by three of ABC's generous sponsors: Paul Bristow and Chris Spooner each contributed UK£500, while Richard Charles provided UK£250.

Connecting forest fragments in the Taita Hills, Kenya

Habitat fragmentation is one of the main causes of species extinction globally. The Taita Hills host many endemic species of flora and fauna, but its forests are severely fragmented. Two Critically Endangered birds, Taita Apalis *Apalis fuscigularis* and Taita Thrush *Turdus helleri* are endemic to the region, both of which have global populations of <1,300 individuals. Despite conservation efforts, numbers continue to decline and inbreeding within isolated habitat fragments is believed to be a contributory cause. Lawrence Wagura of the National Museums of Kenya received a Conservation Award of UK£1,903 to augment landscape connectivity via restoration of a continuous belt (8 km by 20 m) of natural vegetation to connect three forest fragments. This should facilitate interaction between different subpopulations thereby reducing inbreeding. An estimated 320,000 tree seedlings of a variety of native species will be planted on the 16-ha belt, creating a self-sustaining ecosystem closely approximating to the original forest. This will boost the natural vegetation of the Taita Hills by *c.*3.2% and provide critical corridors for the target species. The project will involve local community members who will be provided with environmental education. The March Conservation Fund kindly provided UK£500 via the Tides Foundation towards this award, which complements ABC's previous Conservation Award to Lawrence for environmental education in the Taita Hills, and its contribution of UK£25,000 towards the purchase by *Nature*Kenya of a 25-year lease on the Msidunyi forest patch.

Survey of Mount Nilo, Tanzania

At least seven globally threatened and four Near Threatened species occur in the East Usambara Mountains. However, almost no recent ornithological research has been undertaken in their northern part—Mount Nilo Nature Reserve—where access is hindered by rugged topography and lack of roads. Surveys carried out in 1994–95 produced the first records of some of the threatened species. Further surveys in 2010 suggested that Mount Nilo is extremely rich biologically, with high densities of Long-billed Tailorbird *Artisornis moreaui* (Critically Endangered), and globally important numbers of Usambara Weaver *Ploceus nicolli* (Endangered), Amani Sunbird *Anthreptes pallidigaster* (Endangered) and Banded Sunbird *A. rubritorques* (Vulnerable), among others. Luca Borghesio and his Tanzanian colleagues received a Conservation Award of UK£1,500 to undertake an in-depth exploration of the reserve to assess population sizes of globally threatened species, forest condition and anthropogenic threats. The results will permit precise evaluation of the biological importance of Mount Nilo and of population trends of key threatened birds in 2010–15. The March Conservation Fund kindly provided UK£500 via the Tides Foundation towards this award.

Long-billed Tailorbird / Couturière de Moreau *Artisornis moreaui* (Nik Borrow)

Avian seed dispersal on São Tomé

São Tomé and Príncipe is a major biodiversity hotspot, with São Tomé alone harbouring 20 bird species endemic to the Gulf of Guinea, three of them listed as Critically Endangered. In tropical forests, animal-mediated seed dispersal is vital for the demographic recruitment of many plant species. Frugivorous birds on São Tomé help vegetation to recolonise degraded areas of abandoned crops through transport of native seeds from surrounding forest, but they also carry exotic plant seeds, facilitating invasion. Since the future of São Tomé's endemic birds depends on the long-term conservation of native forests, it is imperative to understand the role of seed dispersal on forest regeneration. Ana Isabel Cavaco Pinto Coelho, an M.Sc. student at the Lisbon University Faculty of Sciences, received an Expedition Award of UK£1,631, generously funded by Tasso Leventis, to sample fruit availability, bird abundance, seed dispersal interactions (by identifying seeds in bird droppings) and forest regeneration in both native and secondary forest. Local staff will be trained in field work, to improve skills and knowledge in the country. The project will provide the first quantitative study of seed dispersal and its consequences for forest regeneration on São Tomé. It will also contribute to the wider goal of understanding the role of species interactions in maintaining ecosystem biodiversity and function on islands and tropical rainforests under pressure from land-use change and invasive species.

Reports received

Trichomonas infection in Turtle Doves in West Africa

In May 2012 Dr Danaë Sheehan and Dr Jenny Dunn of the Royal Society for the Protection of Birds were awarded a UK£2,000 Expedition Award—kindly provided by Tasso Leventis—to investigate the prevalence of infection by the protozoan parasite *Trichomonas gallinae* in European Turtle Doves *Streptopelia turtur* and sympatric African pigeons in the Nigerian Sahel. European Turtle Dove is the UK's only migratory dove, overwintering in sub-Saharan Africa and relying on seeds on European farmland during the summer to raise its young. The UK population declined by 89% between 1970 and 2008, a trend paralleled by a 69% decline across Europe since 1980. Its global threat status was consequently uplisted in October 2015 to Vulnerable. Disease caused by *Trichomonas* infection has been one hypothesised cause of this dove's decline, as it is an emerging avian pathogen across Europe, and has led to documented population declines in songbirds (especially European Greenfinches *Carduelis chloris*) where prevalence is high.

European Turtle Dove / Tourterelle des bois *Streptopelia turtur* (Georges Olioso)

European Turtle Doves breeding in the UK are thought to have a non-breeding range spanning much of the Sahel in West Africa, coinciding with the range of several species of Afrotropical columbids. *T. gallinae* may be transmitted between infected individuals at shared food and water sources, with this being of particular concern at those sites utilised by large numbers of birds. Such events may be frequent in the Sahel, where birds congregate at scarce water resources in an otherwise arid environment.

The original site selected for this study, in northern Nigeria, could not be used due to escalating security concerns caused by Boko Haram insurgents. Consequently, field work was switched to a site in Burkina Faso, at Oursi, in the far north-east of the country. Catching and sampling of turtle doves and Afrotropical *Streptopelia* species was carried out between October 2012 and February 2013 by Aly Issa and Oumar Issa from the Fondation NATURAMA, Ouagadougou. They were trained in the specific sampling techniques required for this research by Danaë Sheehan, according to detailed protocols established by Jenny Dunn and Rebecca Thomas of the School of Biology, University of Leeds, UK.

Doves—both migrant and resident species—were caught using mist-nets erected at regularly used roost sites. Each bird was ringed using a metal ring from the Ghana Ringing Scheme and standardised biometrics (wing length, tarsus length, mass) were recorded. The

presence of *T. gallinae* parasites was tested by taking a swab of the oral cavity, oesophagus and crop. Each swab was immediately used to inoculate a uniquely identifiable, individual 'InPouch' Culture kit, which was incubated for a minimum of 72 hrs at 37°C before the parasites were isolated and stored in phosphate-buffered saline solution.

Samples were collected from a total of 139 individuals: 36 European Turtle Doves, 88 Laughing Doves *Streptopelia senegalensis*, three African Collared Doves *S. roseogrisea*, four Vinaceous Doves *S. vinacea*, and eight Mourning Doves *S. decipiens*. Research in Burkina Faso was undertaken with the prior permission of the Director of Wildlife and Hunting, but there was subsequently an extended delay in obtaining an export permit and the samples were stored for a prolonged period in suboptimal conditions. They were finally imported to the UK in 2015, and whilst initial analysis has suggested that some are viable, unfortunately the conclusions that can be drawn will be limited.

A follow-up expedition to Senegal during late February and early March 2014 secured samples from a further 130 doves of five species: 11 European Turtle Doves, 30 Laughing Doves, one Vinaceous Dove, 73 Namaqua Doves *Oena capensis* and 19 Black-billed Wood Doves *Turtur abyssinicus* (the latter two both Least Concern). Funding from the NERC Biomolecular Analysis Facility at the University of Sheffield was obtained in late 2014 to cover the laboratory analysis, which should be completed in late 2016. Initial analysis suggests a *Trichomonas* prevalence of 100% in European Turtle Dove samples from Senegal and 77% in Burkina Faso. However, the latter is probably an underestimate due to the suboptimal storage conditions. Further analysis will examine the genetic strain of *Trichomonas* in samples from all species, as well as establishing prevalence estimates in Afrotropical columbids. Results will be presented in a paper that is expected to be submitted for publication in early 2017.

Emerald Starling survey in Sierra Leone and Guinea

In October 2013 Sama Monde of the Conservation Society of Sierra Leone (CSSL) received a UK£1,500 Conservation Award, generously funded by Tasso Leventis, to survey Emerald Starling *Lamprotornis* (*Coccycolius*) *iris*, a Data Deficient species restricted to wooded habitats and open savanna in the Upper Guinea region. The survey was undertaken in February–March 2014 by CSSL staff members Momoh Bai Sesay, Papanie Bai Sesay, Guinée Écologie staff member Roger Doré and Royal Society for the Protection of Birds (RSPB) volunteer Paul Eele. Point count surveys were performed in three areas, two which were previously surveyed in February 2013 and November 2013 (Kabala / Lake Sonfon and Tingi Hills in Sierra Leone) and one new area at Gueckedou in Guinea. Over the 22-day survey, 94 Emerald Starlings were observed. Significant numbers (a total of 57) were recorded at Lake Sonfon on 11–16 February, with the largest single count being 22 individuals at a roost. Other counts at Kabala and Tingi Hills were comparable to those in November 2013. In the newly surveyed areas, small numbers were seen south-east of Tingi Hills, near the Guinea border. Breeding was suspected around Lake Sonfon and in the Tingi Hills, with birds observed entering holes in dead standing wood, carrying food and nesting material.

The basic habitat data collected indicate that Emerald Starlings are more likely to occur on managed land, rather than in areas of natural, or combinations of natural and managed, vegetation. The species is also more likely to be found at higher altitudes and prefers drier sites (*c.*80 mm of rain p.a.), which are photosynthetically more productive during the breeding season. Sites with less variation in rainfall during the annual cycle also appear to be favoured. Full analysis of the counts, and the habitat data collected, will be analysed by CSSL's RSPB collaborators and published in a peer-reviewed scientific paper.

Lake Sonfon is an Important Bird and Biodiversity Area (IBA) supporting *c.*105 bird species and has been identified as an important area for Emerald Starling. The lake, however, has no legal protection and is under serious threat, from artisanal miners and industrial mining companies who block waterways and clear forested areas for gold mining. The cultivation of rice by local communities also poses a significant threat to many species. A key future priority for CSSL is to develop a project at Lake Sonfon to highlight the importance of the site for biodiversity, its cultural significance and value to the livelihoods of the local people, and help conserve it. Importantly, the data gathered during this survey fed into the re-categorisation of the Emerald Starling's status from Data Deficient to Least Concern in the October 2015 revision of the IUCN Red List.

Grey Crowned Crane survey in Uganda

Also in October 2013, Dr Sarah Nachuha from the Islamic University in Uganda received a Conservation Award of UK£1,500, kindly sponsored by Mark Constantine's Lush Fund, to survey Grey Crowned Crane *Balearica regulorum* in the Doho wetlands. These wetlands in the east of the country have historically been important foraging and breeding grounds for the species, which is listed as Endangered by IUCN. The crane is Uganda's national bird, features prominently on the national flag, and is considered by many to be a symbol of wetland health. The Doho wetlands was the site of one of three large rice irrigation schemes established by the Ugandan government. The schemes have had a tremendous spillover effect, with farmers

Grey Crowned Crane / Grue couronnée
Balearica regulorum (Ron Eggert)

Humblot's Heron / Héron de Humblot
Ardea humbloti (Liz Leyden)

around them reclaiming swamps for rice cultivation thereby affecting the flora and fauna over a much wider area.

In March 2015 a rapid assessment was undertaken during which 45 local people were interviewed on issues relating to the species' current status, the threats that it faces, and its current and former foraging and breeding sites. Based on the responses obtained, ten monthly surveys were conducted between April 2014 and January 2015 in the Doho Rice Scheme and seven surrounding wetlands. Cranes were only rarely seen foraging and no evidence of breeding was observed at any of the wetlands surveyed. Only 46 individuals were recorded, the majority in Doho Rice Scheme during April (six), May (12) and June (17).

Local people reported that they formerly trapped crane chicks and reared them for food, but have stopped because the birds have become warier and no longer use the wetlands to breed. The following site-based actions were identified that would help safeguard the species in the region: (i) formulate bye-laws for better use of the wetlands; (ii) engage local communities, especially farmers, to develop sound wetland management; (iii) strengthen local NGOs' knowledge and understanding of the importance not only of Grey Crowned Cranes, but all bird species and wetlands in general; (iv) environmental education in primary schools; (v) pilot alternative livelihood options to rice-growing; (vi) inform local communities as to the ecosystem services of wetlands; and (vii) promote tree planting.

Waterbird survey in Madagascar

In June 2014 Felix Razafindrajao of the Durrell Wildlife Conservation Trust Madagascar Programme received a Conservation Award of UK£1,970 for waterbird surveys of Loza Bay Important Bird Area in the Antsohihy and Analalava districts of north-west Madagascar. Three major rivers flow into Loza Bay: the Tsinjomorona, Maevarano and Anjingo. The bay covers *c.*60,700 ha including 18,000 ha of mangroves, and a mosaic of coastal habitats important for waterbirds including extensive saltpans, brackish shallow lakes, and lagoons that flood at high tide. Three field surveys were undertaken, on 24 August–2 September 2014, 1–7 December 2014 and 10–15 February 2015. The surveys recorded a total of 3,334 waterbirds, of which 1,148 were seen in the August–September visit, 1,797 in December and 389 in February. Numbers recorded in February 2015 were low because the survey focused solely on the south part of the bay, where nest searches for Madagascar Teal *Anas bernieri* and other species were conducted. In total, 37 waterbird species were recorded, including four globally threatened birds. Max. counts of four Madagascar Fish Eagles *Haliaeetus vociferoides* (Critically Endangered), seven Humblot's Herons *Ardea humbloti*, 18 Madagascar Sacred Ibises *Threskiornis bernieri* and 36 Madagascar Teal (all Endangered) were made. It was estimated that there could be up to 60–100 Madagascar Teal in Loza Bay, which qualifies the site as globally important for the species. Significant numbers of Greater Flamingos *Phoenicopterus roseus* and Lesser Flamingos *Phoeniconaias minor* (Near Threatened)—190 and 19 respectively—were also seen, and 30 endemic or regionally endemic forest bird species were recorded. A major nesting colony on Nosiborona Island was identified during the December 2014 (breeding season) survey. Around 1,000 nests, mostly of Cattle Egrets *Bubulcus ibis* and ten of Dimorphic Egrets *Egretta dimorpha*, were counted.

Interviews were conducted with local people, to collect data on their use of natural resources. Results

showed that local people are predominantly fishermen and there is significant pressure via unsustainable use and disturbance. The report recommends that annual monitoring of waterbirds, particularly the endangered endemics and the nesting colony on Nosimborona (Bird Island), be continued to assess trends in biodiversity and human threats, and to identify conservation measures to ensure the long-term future of Loza Bay.

Lake Elementaita environmental education

In February 2015 Charles Mwangi Gitau of *Nature*Kenya received a Conservation Award of UK£1,883, generously sponsored by Tasso Leventis, to promote the wise use and protection of Lake Elementaita through environmental education activities among communities living around the lake and its catchment areas. Lake Elementaita is a shallow alkaline lake (1,800 ha; max. depth 1.9 m) on Kenya's Rift Valley floor 20 km south-east of Nakuru. It is fed by hot springs at its southern end and two small streams flowing from the eastern plateau. The surrounding landscape is characterised by dramatic rocky faults, volcanic outcrops and cones. Rainfall is erratic and averages <600 mm/year. To the east, the lake is flanked by small-scale agriculture, while several large farms surround the rest.

Lesser Flamingo / Flamant nain *Phoeniconaias minor* (Tadeusz Rosinski)

Lake Elementaita is an Important Bird Area and a Ramsar site due to the assemblage of various birds of conservation concern such as the range-restricted Grey-crested Helmetshrike *Prionops poliolophus* (Near Threatened) which occurs in the surrounding woodland. Others include Lesser Flamingo *Phoeniconaias minor* (Near Threatened), Jackson's Widowbird *Euplectes jacksoni* (Near Threatened), Crowned Eagle *Stephanoaetus coronatus* (Near Threatened), Greater Spotted Eagle *Clanga clanga* (Vulnerable), Martial Eagle *Polemaetus bellicosus* (Vulnerable) and White-headed Vulture *Trigonoceps occipitalis* (Critically Endangered). It also sustains significant populations of >100 species of Palearctic migrants. In addition, the lake supports one of the world's major breeding colonies of Great White Pelicans *Pelecanus onocrotalus* and forms part of the Great Rift Valley migratory flyway system for birds. In 2011 it was designated part of the 'Kenya Lake System in the Great Rift Valley' World Heritage Site.

Environmental education activities were undertaken from May until late June 2015 by members of the Lake Elementaita Conservation and Awareness Group, with the aid of facilitators from *Nature*Kenya's Youth Committee. Six secondary schools and ten primary schools were visited and 1,955 pupils and students were engaged. They were taught about wetlands, the importance of the avifauna found in and around wetlands, and the problems they face due to degradation. Posters and magazines containing environmental information on Lake Elementaita and other wetlands, their biodiversity and importance, were distributed. The students also had an opportunity to watch educative wildlife and conservation documentaries.

Nature walks were conducted around the lake. Students were divided into small groups led by an

Great White Pelicans / Pélicans blancs *Pelecanus onocrotalus* (Adam Riley)

experienced nature guide. The students were assisted to use field equipment, including binoculars, telescopes and guide books for identifying common birds. Other fauna and common plants encountered were also identified, as well as inter-relationships and inter-dependences between the plants, animals and the wetland. The importance of birds to people and to the environment, especially as disturbance indicators, and threats to the lake environment (e.g. sand harvesting, irresponsible waste disposal / pollution and excessive abstraction of water) were also highlighted.

Thirteen of the 16 schools had dormant environmental clubs. Through the project activities, especially birding, these were rejuvenated, and three new clubs were initiated. A comprehensive checklist of birds of Lake Elementaita was compiled from the birding sessions and submitted to the Kenya Bird Map project website. The students also engaged in tree planting activities and >700 indigenous tree seedlings were planted, with the aim of creating habitat for a number of organisms including birds that depend on the trees for foraging, roosting and nesting.

Hinde's Babbler conservation month

In June 2015 Gabriele Ngale of the Wildlife Clubs of Kenya received a UK£2,000 Conservation Award, generously sponsored by Avifauna, to foster conservation awareness of the globally Vulnerable Hinde's Babbler *Turdoides hindei*—a Kenyan endemic—in the Mukurweini Valleys. This Important Bird Area (IBA) on the southern slopes of Mount Kenya covers at least 20,000 ha at elevations of 1,500–1,600 m. The Mukurweini Valleys are the species' stronghold and are believed to host about half of the total world population.

The project was implemented in September–October 2015. Some 8,465 schoolchildren and 153 teachers at 56 schools within the Mukurweini Valleys IBA and environs were reached by the project. Through thematic talks, discussions and screening of conservation films, the schoolchildren and teachers were educated as to the status, ecology, threats and measures needed to conserve Hinde's Babbler. The schools were enrolled as wildlife clubs forming a grassroots network that can be involved in conservation activities within the IBA. The project also organised an awareness day that brought together pupils and teachers from ten schools in the Mukurweini Valleys. Activities on the day included lectures about Hinde's Babbler, a competition, guided nature walks and habitat restoration through tree planting. In addition, 46 primary school head teachers were informed about the species. Various conservation education materials—including 200 copies of a Hinde's Babbler conservation poster, a banner and 100 copies of a film documentary—were produced and distributed to schools and other stakeholders in the region. An article describing the project was published in the Wildlife Clubs of Kenya youth conservation magazine *Komba*, which is distributed to thousands of member schools in the country.

Dr Chris Magin, ABC Conservation Officer on behalf of the ABC Conservation Committee

The ABC website (http://www.africanbirdclub.org/conservation-fund-past-projects) shows the complete list of conservation projects and awards made since the inception of the programme more than a decade ago. **A remarkable total in excess of UK£240,000 has been disbursed during this period.** Many of the final project reports, including full versions of those summarised above, can be viewed by clicking the hyperlinks on the webpage.

Africa Round-up

Compiled by Ron Demey, Guy M. Kirwan and Peter Lack

General

IUCN Red List changes

Twenty-four bird species are classified in the 2015 Red List update as having a higher risk of extinction (either Vulnerable, Endangered or Critically Endangered), with seven of these having been upgraded to Critically Endangered. Another 16 bird species have seen their status change from Least Concern (the lowest level of threat) to Near Threatened, whereas 23 species have been downgraded to lower threat categories.

Species uplisted to Critically Endangered in the ABC region include four vultures: Hooded *Necrosyrtes monachus*, White-backed *Gyps africanus*, Rüppell's *Gyps rueppellii* (all three formerly Endangered), and White-headed Vultures *Trigonoceps occipitalis* (formerly Vulnerable). Uplisted to Endangered are Lappet-faced Vulture *Torgos tracheliotos* and Cape Vulture *Gyps coprotheres* (both formerly Vulnerable) and Steppe Eagle *Aquila nipalensis* (formerly Least Concern). Palearctic visitors uplisted to Vulnerable include Common Pochard *Aythya ferina* and European Turtle Dove *Streptopelia turtur* (both formerly Least Concern), while widespread waders that have seen their status raised from Least Concern to Near Threatened include Northern Lapwing *Vanellus vanellus*, Eurasian Oystercatcher *Haematopus ostralegus*, Bar-tailed Godwit *Limosa lapponica*, Red Knot *Calidris canutus* and Curlew Sandpiper *C. ferruginea*. New data on Emerald Starling *Lamprotornis* (*Coccycolius*) *iris* resulted in this formerly Data Deficient species being classified as Least Concern (see p. 7).

Species that have been downlisted to a lower level of threat include Seychelles Warbler *Acrocephalus sechellensis* (from Vulnerable to Near Threatened), as well as Audouin's Gull *Larus audouinii*, European Roller *Coracias garrulus* and Semi-collared Flycatcher *Ficedula semitorquata* (from Near Threatened to Least Concern). The warbler's population was reduced to just 26 birds on tiny Cousin Island in 1968. That year, the island was purchased by the International Council for Bird Preservation (the forerunner to BirdLife International). Thanks to subsequent intensive conservation management, such as the clearance of coconut plantations, which permitted the warbler's woodland to regenerate, and translocations to four other Seychelles islands, the population reached 2,800 individuals in 2014, with conservationists expecting it to rise to *c.*7,000 birds in the future. Audouin's Gull, formerly one of the world's rarest breeding seabirds, with just 1,000 pairs in 1975, has seen its status improve due largely to protection of its breeding colonies and there are now more than 20,000 pairs in the western Mediterranean alone.

Source: www.birdlife.org/worldwide/news/2015-red-list

Hooded Vulture / Vautour charognard *Necrosyrtes monachus* (Lionel Sineux)

White-headed Vulture / Vautour à tête blanche *Trigonoceps occipitalis* (Adam Riley)

Common Pochard / Fuligule milouin *Aythya ferina* (Georges Olioso)

African vultures heading towards extinction

The first estimates of a 30-year pan-African vulture decline have revealed that eight species declined at a rate of 70% or more over three generations: Bearded Vulture *Gypaetus barbatus* (-70%), Egyptian Vulture *Neophron percnopterus* (-92%), White-backed Vulture *Gyps africanus* (-90%), Rüppell's Vulture *G. rueppelli* (-97%), Cape Vulture *G. coprotheres* (-92%), Hooded Vulture *Necrosyrtes monachus* (-83%), Lappet-

faced Vulture *Torgos tracheliotos* (-80%) and White-headed Vulture *Trigonoceps occipitalis* (-96%). Populations are declining throughout Africa, with West and East Africa showing the greatest declines per annum. Although declines were generally greater in unprotected areas, substantial declines were also evident within protected areas. The most significant threats are poisoning and trade in traditional medicines, which accounted for 90% of reported deaths. African vultures are often the unintended victims of poisoning, when carcasses are baited with highly toxic agricultural pesticides to kill carnivores or to control feral dog populations. Vulture mortality has also substantially increased in parallel with the recent dramatic increase in elephant and rhino poaching, as poachers poison carcasses specifically to eliminate vultures, whose overhead circling might otherwise reveal the poachers' activities. Consequently, the estimated decline rates may have accelerated sharply in recent years (e.g., since July 2011, there have been at least ten poisoning incidents that have, collectively, killed at least 1,500 vultures in six southern African countries). The second significant threat that is increasing concerns the illegal trade in vulture body parts for use in traditional medicine, as it is variously believed that they cure a range of physical and mental illnesses, improve success in gambling and business ventures, or increase intelligence in children. African vultures are also frequent victims of electrocution, particularly in southern and North Africa, where there has been an increase in electrical infrastructure development such as power lines and wind farms. Other threats that are more difficult to quantify include reduction of habitat, disturbance at nest sites, and food declines.

Source: Conserv. Lett. *(2015), doi: 10.1111/conl.12182*

Bearded Vulture / Gypaète barbu *Gypaetus barbatus* (Adam Riley)

Lappet-faced Vulture / Vautour oricou *Torgos tracheliotos* (Mark Anderson)

Global seabird numbers have collapsed in last 60 years

A study based on data collected from 500 seabird populations, by Michelle Paleczny and co-workers, has revealed that global seabird numbers (e.g., tubenoses, frigatebirds, tropicbirds, pelicans, skuas, gulls and terns) fell by 69.6% in 1950–2010, i.e. equating to the loss of 230 million seabirds in 60 years. The well-known causes include overfishing, entanglement in fishing gear at sea, pollution by oil and plastics, lack of protection at breeding colonies, introduced species (predators such as rats and cats being introduced to breeding islands) and environmental changes. While conservation efforts have been successful in reducing mortality of some species in recent decades (e.g., banning direct exploitation, eradicating some introduced predators, reducing entanglement in fishing gear), these have not been sufficient to stop or reverse large-scale seabird declines. The largest declines were observed in families containing wide-ranging pelagic species, such as albatrosses, skuas and terns, suggesting that pan-global populations may be more at risk than shorter ranging coastal populations.

Source: PLoS ONE *10(6): e0129342. doi:10.1371/journal.pone.0129342*

Current conservation status of Blue Swallow

Blue Swallow *Hirundo atrocaerulea*, an intra-African migrant, is classified as Vulnerable on account of its small and rapidly declining population estimated at <1,500 pairs. A recent study, conducted by Steven Evans and co-workers, identified three previously unknown areas that might form part of the species' non-breeding range in Kenya and northern Tanzania. Within its breeding range, three previously unknown areas of potentially suitable habitat were found, one in Tanzania and two in Malaŵi. Population viability assessment predicted that the Blue Swallow population will decline by 8% in 10 years. Minimum viable population size analysis suggests that a population of at least

3,600 individuals is necessary for the species' long-term conservation. This should consist of a minimum 900 individuals in each of four clusters, located in (1) south-eastern DR Congo, (2) the highlands of southern Tanzania and northern Malawi, (3) the eastern highlands of Zimbabwe and (4) South Africa and Swaziland. Currently, 53% of the Blue Swallow population occurs in strictly protected areas on their breeding grounds and 47% in unprotected areas, whilst the corresponding percentages on their non-breeding grounds are 25% and 75%, respectively.

Source: Ostrich *86, pp. 195–211*

Migration routes of Asian Common Swifts revealed

The migration routes taken by members of the *pekinensis* race of Common Swift *Apus apus* that breeds in Beijing, China, near the eastern edge of the species' range, were unknown, but birds with the morphology of *pekinensis* and specimens have been recorded in the south-west corner of Africa. Thanks to ultra-light geolocators it has been revealed that the birds winter in southern Africa; they cover a one-way distance of more than 13,000 km via Mongolia, Iran, the Arabian Peninsula, and Congo to Namibia and Western Cape, South Africa, where they remain for three months. While in the Congo, they could mix with birds from Europe, which head further east or south-east. The return to Beijing roughly retraces the steps of the outward journey. For details, visit the Birding Frontiers (http://birdingfrontiers.com/2014/05/26/tracking-pekinensis-common-swifts/) and Action for Swifts websites (http://actionforswifts.blogspot.jp/2015/05/beijing-swift-project-preliminary.html).

Source: Br. Birds e-newsletter 2, June 2015

Migrating European Honey Buzzards travel more than 230 km a day

A female European Honey Buzzard *Pernis apivorus* fitted with a satellite transmitter on her breeding grounds in Finland, spent the austral summer of 2014/15 around Reitz, Free State, South Africa, departing on 20 April to reach Finland on 2 June, thereby covering >10,000 km in just 42 days, i.e. a mean of more than 230 km per day. A male European Honey Buzzard left its wintering grounds in eastern Gabon on 15 April 2015 and travelled via Cameroon, Central African Republic, Sudan, the Sinai, Syria, Armenia and Russia, to arrive in Finland after 37 days, having covered 9,200 km, i.e. an average of 248 km a day.

European Honey Buzzard / Bondrée apivore *Pernis apivorus* (Georges Olioso)

Source: http://www.luomus.fi/en/satellite-honey-buzzards

Complex migration and breeding strategies revealed in Baillon's Crake

Isotopic and genetic data analysed by Nina Seifert and co-workers revealed a complex migration and breeding strategy in Baillon's Crake *Zapornia* (*Porzana*) *pusilla* allowing for irruptive movements and itinerant breeding across the West Palearctic and Afrotropical regions. Genetic clusters of African and European populations were found, with African birds occurring in breeding condition in Europe and vice versa. Likewise, moulting locations suggested trans-continental movements as well as moulting and possibly breeding by the same individual both in Africa and Europe.

Source: J. Avian Biol. *46, pp. 1–13*

Migration routes of European Rollers uncovered

A study by Finch and co-workers on 31 European Rollers *Coracias garrulus* from seven European countries equipped with lightweight geolocators and satellite tags revealed that in autumn all refuelled for a month, between mid September and early November, in the savanna region between the Sahara Desert and the equatorial forests, possibly in the Lake Chad basin. After this important stop-over, they continued their journey to southern Africa, where they arrived at the onset of the rainy season. They showed 'parallel migration' (western birds following a route to the west of eastern birds) and 'leap-frog migration' (northern birds overtaking southern birds to arrive at wintering sites further south). The researchers conclude that the moderate levels of 'migratory connectivity' (the mixing of different breeding populations throughout the non-breeding season) detected may increase the resilience of populations to localised habitat loss in the winter quarters. Crucial passage areas include the Sahel / Sudan savanna for all populations, and the Horn of Africa / Arabian Peninsula for north-eastern birds.

Source: Diversity and Distributions *doi:10.1111/ddi.12345*

European Roller / Rollier d'Europe *Coracias garrulus* (Mark Anderson)

Bar-throated Apalis / Apalis à collier *Apalis thoracica* (Mark Anderson)

Bar-throated Apalis ornamentation is a signal for breeding success

The breast-band of Bar-throated Apalis *Apalis thoracica* is highly variable in both sexes, and in males is associated with body mass. A new study has found that egg mass increases with male breast-band size and decreases with that of females. Males with larger bands provide more food to their mates and chicks, thereby permitting females to incubate or brood more. Reproductive effort of both parents was predicted by their own and their mate's ornamentation, and therefore potentially a signal of performance in both sexes. There is a need for more analyses of melanin-based ornaments and fitness.

Source: Ibis *157, pp. 731–742*

Sixty new dragonfly species in Africa!

Only one-fifth of the nine million species of animal, plant and fungus thought to occur on Earth is known. Even though dragonflies (which include damselflies) are relatively well known, researchers have recently described 60 newly discovered species, the greatest number of new dragonflies in *c.*100 years. The discoveries were published by three odonatologists led by SSC Dragonfly Specialist Group member K.-D. Dijkstra of the Naturalis Biodiversity Center, in the journal *Odonatologica*. With this research, the number of dragonfly species known in Africa increases by almost 10%, from 700 to 760 species.

Source: Odonatalogica *44, pp. 447–678*

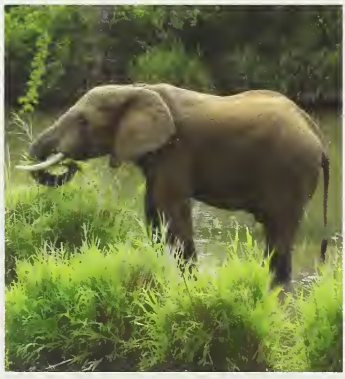
Dramatic decline of African Elephants

'Definite' plus 'Probable' African Elephant *Loxodonta africana* numbers declined from approximately 550,000 to 470,000 between 2006 and 2013, according to the IUCN African Elephant Specialist Group's latest update of the African Elephant Database.

Source: IUCN SSC Species e-bulletin September 2015

Hotspots of African Elephant poaching revealed by genetic analysis

Analysis of genetic material from 28 large ivory seizures made in 1996–2014 has revealed that poaching occurs in two major areas. Savannah Elephants *Loxodonta* (*a.*) *africana* were predominantly killed in south-eastern Tanzania and northern Mozambique (86–93% of tusks seized since 2006), while Forest Elephants *L.* (*a.*) *cyclotis* were mainly poached in Gabon, DR Congo and the Central African Republic. An estimated 40,000 elephants were killed in 2011 and potentially >50,000 in 2013. Identifying poaching hotspots should help to focus law enforcement and tackle the transnational criminal ivory trade, which is threatening African elephant populations with extinction.



Forest Elephant / Éléphant de forêt d'Afrique *Loxodonta* (*a.*) *cyclotis* (Jacques de Spéville)

Source: Science *(2015) dx.doi.org/10.1126/science.aaa2457*

North Africa

Scopoli's Shearwater population found to be much higher than previously thought

The largest known colony of Scopoli's Shearwater *Calonectris diomedea* is on Zembra Island, off the Tunisian coast. In the 1970s and 1980s, it was estimated to number 15,000–25,000 pairs. But, in 2010 Distance Sampling estimated the population at 141,780 pairs (range 114,000–177,000) with a concomitant estimate of the global population in the Mediterranean Basin at 141,000–223,000 pairs. Pierre Defos du Rau and co-workers estimated that 8,800 individuals is the maximum number of adults that could be killed annually by non-natural causes without causing a population decline. Although these results are less alarming with respect to the species' conservation status than previously thought, there are still uncertainties concerning global population size, trends and major threats. The researchers suggest that monitoring strategies for a supposedly well-known bird can be misleading due to survey design, and note that it is essential to reduce all potential biases especially for cryptic species when inferring conservation status.

Source: J. Ornithol. *156, pp. 877–892*

Identification of African Chaffinch

Spurred by recent claims of the occurrence of North African races of Common Chaffinch *Fringilla coelebs* in north-west Europe, Andrea Corso and colleagues have recently published a résumé of the features that can be used to separate birds of the races *spodiogenys*, *africana* and the recently described *harterti* (see *Bull. ABC* 22: 147) from nominate *coelebs*, concluding that tail pattern

Northern Bald Ibis / Ibis chauve *Geronticus eremita* (Adam Riley)

is the only reliable identification feature with any age group or sex. The African taxa have more white on the four outer tail feathers, with the three outermost feathers being almost entirely white. The tail therefore appears half dark and half white; the other taxa have a mainly dark tail with only two white outer feathers.

Source: Dutch Birding *37, pp. 392–402*

Record breeding success for Northern Bald Ibis

For the third consecutive year, the colonies of Northern Bald Ibis *Geronticus eremita* at Souss-Massa National Park and nearby Tamri, both Important Bird & Biodiversity Areas in south-west Morocco, held a record number of breeding pairs, reaching 116 pairs in 2015. Breeding success was also especially high, reaching 1.7 fledglings per pair, and post-breeding counts produced almost 600 birds, the best recorded since detailed monitoring began and the establishment of Souss-Massa National Park 25 years ago.

Source: BirdLife International press release, November 2015

First Long-tailed Duck for Morocco documented

The record of the first Long-tailed Duck *Clangula hyemalis* for Morocco (*cf. Bull. ABC* 21: 243–244), has now been fully documented. The bird, a summer-plumaged female, was discovered on a lagoon near Oualidia (32°46'51.4"N 08°58'37.3"W) on 5 June 2014, a few hundred metres from the Atlantic Ocean. It was still present on 11 June. The record, which has been accepted by the Moroccan Rarities Committee, is also the first for the African continent.

Source: Dutch Birding *37, pp. 247–248*

Three eagles species found electrocuted in Morocco

Three Spanish Imperial Eagles *Aquila adalberti*, five Bonelli's Eagles *A. fasciata* and one Golden Eagle *A. chrysaetos* were found electrocuted 50 km south-west of Guelmim, in southern Morocco, in late October–early December 2015. The wider Guelmim region is one of those areas most frequented by (mainly immature) Spanish Imperial and Bonelli's Eagles in Morocco. Electrocution on power lines is the main known cause of death for the former species, accounting for 60% of mortalities.

Source: http://dx.doi.org/10.6084/m9.figshare.1613292

Atlantic Ocean islands

Ten years of New World vagrants on Corvo, Azores

The small island of Corvo and its neighbour Flores are the westernmost islands in the Azores and of the Palearctic, and are just 1,930 km from Canada. Corvo had remained largely under-explored until relatively recently, and it was only in the autumn of 2005, when no fewer than 14 'firsts' for the Azores were observed, that the island's potential was realised. The success of autumn visits since 2005 has caused the number of birders visiting Corvo each autumn to snowball, which in turn has resulted in increasing numbers of vagrants being reported. David Monticelli and his colleagues have now assembled rare bird data for ten consecutive autumns, with particular emphasis on Nearctic vagrants (the full paper can be downloaded for free on ResearchGate). In 2005–14, no fewer than 31 Nearctic landbird species were added to the Azores list, including 26 species of passerines. The total number of Nearctic species recorded on Corvo now stands at 95, including 38 waterbirds and 57 landbirds. Prior to 2005 just 15 Nearctic vagrants had been recorded on the island.

Source: Macaronesian Birds *1, pp. 28-48*

Ecology of Desertas Petrel represents a conservation challenge

Desertas Petrel *Pterodroma deserta*, which was recently split from Fea's (Cape Verde) Petrel *P. feae* (*cf. Bull. ABC* 17: 17), is listed as Vulnerable because, although it appears to be stable, it has a very small population (160–180 breeding pairs), breeding only on Bugio, in the Desertas Islands, off Madeira. A study conducted by Iván Ramírez and colleagues has greatly improved our understanding of its migration strategies, at-sea activity patterns and trophic niche. Some 54 annual tracks (during 2009–13) of 26 individuals obtained with light-level loggers were combined with stable isotope analyses of blood and feathers. Tracking data showed that the species is a generalist predator, able to adapt to very different habitats. All birds remained faithful to their selected non-breeding areas over the years, leading to very high spatial, temporal and trophic consistency among years. During both the breeding and non-breeding seasons, individuals showed a high level of specialisation and limited choice of prey and habitats. The conservation of this dispersive species whose members have a consistent individual non-breeding distribution pattern poses problems. On the one hand, such a consistent pattern will help to define core areas for conservation, which could be protected through specific management measures or by the establishment of marine protected areas. On the other hand, their relatively large size—on average 4,000 km^2—and extent over both national and international waters, will require coordinated action by many stakeholders.

Source: Anim. Conserv. *doi:10.1111/acv.12227*

Baird's Sandpiper deleted from the Cape Verde list

The two only records of Baird's Sandpiper *Calidris bairdii* for the Cape Verde Islands have been reassessed by Richard Porter and Tony Prater. The first record, of an adult on Sal on 20–22 October 2007, is supported by a photograph that appears to show a Little Stint *C. minuta*, whilst the second, of a juvenile on São Vicente on 1–3 November 2012, is supported by a photograph of a White-rumped Sandpiper *C. fuscicollis*. There are thus no records of Baird's Sandpiper for the archipelago.

Source: Zool. Caboverdiana *5, pp. 116–117*

Foraging ecology of Cape Verde Shearwater

A study conducted by Vitor Paiva and colleagues presents the first data on the foraging ecology of Cape Verde Shearwater *Calonectris edwardsii* during both the incubation and chick-rearing periods of two consecutive years. The species, which is classified as Near Threatened, is an endemic breeder on the Cape Verde Islands, with a total population of *c.*10,000 pairs. During incubation, birds mostly foraged in a discrete region off West Africa, between the southernmost part of Banc d'Arguin National Park, Mauritania, and Cap-Vert, off Dakar, Senegal. This area is known to be very productive and is thus highly exploited by international industrial fishery fleets. When chick-rearing, most foraging occurred within the colony environs, where birds exploited shallower and comparatively less productive Cape Verdean waters, with very few trips towards the African coast. There was a high overlap between Cape Verde Shearwater foraging areas and those of European shearwater species that overwinter in this area, and known areas of megafauna bycatch off West Africa, but very little overlap with existing Marine Important Bird Areas. The study shows that Cape Verde Shearwater is a suitable sentinel for marine ecosystem health and might be a useful umbrella species for the conservation of other aerial and aquatic marine taxa off West Africa and within Cape Verde waters.

Cape Verde Shearwater / Puffin du Cap-Vert *Calonectris edwardsii* (Adam Riley)

Source: PLoS ONE *10(10): e0139390. doi:10.1371/journal.pone.0139390*

West and Central Africa

Swinhoe's Storm-petrel: new to Mauritania and West Africa

During a survey of seabirds and marine mammals off Mauritania on 4–14 September 2015, the first Swinhoe's Storm-petrel *Hydrobates* (*Oceanodroma*) *monorhis* for West Africa was observed south-west of Nouakchott (17°87'N 16°67'W). Diagnostic features noted were size, all-dark rump, forked tail (usually held closed), and white bases to primary shafts. The pale diagonal band on the upperwing was quite distinct, but the overall impression was darker than a Leach's Storm-petrel *H. leucorhous*. Photographs show that the bird was actively moulting (p1 missing). The species is known to breed only on islets of Japan, China, Korea and extreme south-east Russia, but records since 1983 from the North Atlantic suggest possible breeding. Also noteworthy was a single dark-morph South Polar Skua *Stercorarius maccormicki* following a commercial trawler at 20°50'N 17°43'W. The blackish underwing-coverts, 'cold', evenly sooty blackish-brown plumage and relatively slender bill were considered diagnostic by three experienced observers. This species is not mentioned by Isenmann *et al.* (2010. *Birds of Mauritania*).

South Polar Skua / Labbe de McCormick *Stercorarius maccormicki* (Adam Riley)

In total, the survey recorded 30 seabird species and 13 species of cetaceans (including one Blue Whale *Balaenoptera musculus*). Among seabirds were five species of storm-petrels, eight shearwaters (including Cape Verde Shearwater *Calonectris edwardsii*: common and widespread), three gulls, seven terns (with Common Tern *Sterna hirundo* and Black Tern *Chlidonias niger* being the commonest of all seabirds) and four skuas. Great White Pelicans *Pelecanus onocrotalus* were recorded on three occasions (11 birds in total) at 14–36 km from the shore.

Source: C.J. Camphuysen (2015) Ship-based seabird and marine mammal surveys off Mauritania, 4–14 September 2015

Feeding ecology of shorebirds wintering at Banc d'Arguin, Mauritania

A considerable decline in shorebird numbers has recently been observed at the Banc d'Arguin, Mauritania, the most important shorebird non-breeding area along the East Atlantic Flyway. In an attempt to interpret these changes, Pedro Lourenço and colleagues studied the diet and foraging behaviour of six shorebird species, which together represent >80 % of the individual shorebirds wintering at the site, by analysing droppings and video recordings. The species were Dunlin *Calidris alpina*, Sanderling *C. alba*, Red Knot *C. canutus*, Common Ringed Plover *Charadrius hiaticula*, Grey Plover *Pluvialis squatarola* and Bar-tailed

Godwit *Limosa lapponica*. In four of these, the detail achieved in prey identification permitted calculations of niche width and foraging niche overlap. Sanderling and Ringed Plover took a wide range of macro-invertebrate species, while Red Knot consumed mainly bivalves with some gastropods, and both Grey Plover and Bar-tailed Godwit fed mainly on polychaete worms. A large proportion of Dunlin droppings had no recognisable food items, suggesting soft-bodied, unidentifiable prey; the diet of Dunlin, locally the most abundant wintering wader, therefore remains unknown. The low levels of diet overlap among the shorebirds studied may indicate that their decrease at Banc d'Arguin reflects widespread negative changes in the ecosystem, since these changes are affecting predators with clearly distinct niches.

Source: Estuaries and Coasts *doi 10.1007/s12237-015-0029-1*

Palearctic migrants departing West Africa—the plot thickens

Many Afro-Palearctic migrants are declining more than other European species, suggesting that conditions in Africa may be critical to their survival. An analysis of spring departure dates and mass data for Whinchats *Saxicola rubetra* in central Nigeria was undertaken by Alice Risely *et al.* Males departed eight days prior to females, but there was no evidence that timing was linked to age, body size or mass at capture. Most left with a predicted mass *c.*30% below that estimated to be needed to cross the Sahara. Comparing departure dates and arrival dates in Europe suggested that the birds must stop for two weeks or so somewhere away from their winter territories to fatten up for the desert crossing. Whether these are local to the wintering areas or further afield is unknown. Non-territorial or migrating birds gained weight much faster than territorial birds and around 20% had sufficient resources to cross the desert when they left the study area. Resource constraints therefore are likely to be particularly focused on West Africa in mid-April staging areas.

Whinchat / Tarier des prés *Saxicola rubetra* (Tadeusz Rosinski)

Source: Ibis *157, pp. 808–822*

Preuss's Red Colobus in Cross River National Park

"Persistence in anti-poaching patrolling pays off" according to Inaoyom Imong, Director of the Cross River Landscape for IUCN Member and SOS Grantee, the Wildlife Conservation Society (WCS). In one year, patrols through the Oban Division of the Cross River National Park, Nigeria, have cleared almost 1,000 snares and hundreds of empty shotgun cartridges, discovered 45 hunting camps and arrested several poachers, but the highlight was perhaps visual confirmation of the Critically Endangered Preuss's Red Colobus *Procolobus preussi* in Oban.

Source: IUCN SSC Species e-bulletin September 2015

More park rangers killed in DR Congo

Virunga National Park, DR Congo, has lost 140 rangers to violence in the past few years. The latest victims were in June 2015, when one ranger was killed and several others injured in a violent attack by armed rebels. Illegal exploitation of Virunga's natural resources is financing the ongoing conflict in the east of the country and the rebels probably wanted to take control of Lake Edward for transport and illegal fishing. In Garamba National Park, in north-east DR Congo, another ranger died after being shot by poachers in April 2015. He was a member of a patrol unit monitoring herds of elephants at the time of the shooting. These deaths highlight the vulnerability of the parks and the courage and dedication of the rangers who risk their lives to protect them.

Sources: news.nationalgeographic.com/2015/06/150626-virunga-park-ranger-killed; www.africanparks.eu/Blog_175_Ranger+killed+by+poachers

East Africa

South-west Ethiopia in the spotlight

The husband and wife duo, Bob Dowsett and Françoise Dowsett-Lemaire spent October–November 2014 in south-west Ethiopia and made a large number of observations that update the now-standard atlas to Eritrea and Ethiopia, published in 2009 by the late John Ash and John Atkins. In the resultant paper, records of two species are detailed for the first time in Ethiopia—Violet Wood-hoopoe *Phoeniculus damarensis* and Purple Indigobird *Vidua purpurascens*—while the second certain localities for Barka Indigobird *V. larvaticola* and Wilson's Indigobird *V. wilsoni* are reported, and the specific status of Little Rush

Little Rush Warbler / Bouscarle caqueteuse *Bradypterus baboecala* (Adam Riley)

Warbler *Bradypterus baboecala* in Ethiopia is finally established. Other records include those relating to species previously unreported in the country in October, and altitudinal limits that differ substantially from those presented by Ash & Atkins. They also detail a number of previously published records that were not reflected in the maps in Ash & Atkins, as well as listing some *c.*200 species / square records additional to those mapped by Ash & Atkins.

Source: Bull. Br. Ornithol. Club *135, pp. 224–239*

East African and Indian Lesser Flamingo populations are linked

Lesser Flamingos *Phoeniconaias minor* from the both the Rift Valley (Lake Bogoria) and Gujarat (Rann of Kachchh, India) have been sampled genetically. There were low levels of polymorphism sufficient to preclude genetic isolation between the two populations. A limited number (2–3 migrants per generation) may move between the two areas and this would be sufficient to maintain the connectivity. The authors propose that the Rift Valley population acts as a 'centre of connectivity' for all the more remote populations and movements between India and East Africa account for the occasional records along Indian Ocean coasts and on the Arabian Peninsula.

Source: Ostrich *86, pp. 221–229*

Survey of Mount Kisingiri finds first Western Citril for Kenya

The previously completely unknown avifauna of Mount Kisingiri, a 13-km-wide dormant caldera on the shores of Lake Victoria in southern Nyanza Province, was investigated by James Bradley and colleagues during three brief exploratory visits undertaken in 2011–14. Portions of the crater rim that remain today, and comprise two of the three main highland areas, include the 2,260-m Gwassi Hills in the south and east, and the 1,880-m Gembe Hills in the north. A total of 159 bird species was recorded in the Gwassi and Gembe Hills. The presence of 34 forest-dependent species was confirmed,

Crowned Eagle / Aigle couronné *Stephanoaetus coronatus* (Adam Riley)

White-backed Vulture / Vautour africain *Gyps africanus* (Adam Riley)

Western Citril / Serin à diadème *Crithagra frontalis* (Tadeusz Rosinski)

including the Near Threatened Crowned Eagle *Stephanoaetus coronatus*. Additionally, the first Western Citril *Crithagra frontalis* for Kenya was photographed in November 2014. The study revealed that the forest bird community is highly threatened, with apparently dwindling numbers of forest specialists. In the Gwassi Hills Forest Reserve rapid deforestation is ongoing.

Source: Scopus *35, pp. 11–38*

Vultures favour protected areas

Over six years of survey, the numbers of five scavenging species of vulture combined were found to be 4–6 times higher in protected areas than elsewhere in Uganda using estimates derived from Distance Sampling. Two species, White-backed *Gyps africanus* and Lappet-faced Vultures *Torgos tracheliotus*, were observed only in protected areas. Their population sizes were estimated. Distance Sampling, even though distances were only placed into three broad bands, allowed calculations with precision similar to linear encounter rates but with the addition of being density estimates and therefore more comparable with other areas.

Source: Bird Conserv. Intern. *25, pp. 399–414*

First Long-tailed Skua for Uganda

The first Long-tailed Skua *Stercorarius longicaudus* for Uganda, photographed at Lake Munyanyange, bordering Queen Elizabeth National Park, on 5 December 2014, has been accepted by the East African Rarities Committee. Long-tailed Skua is an extremely rare vagrant to coasts and inland lakes of eastern Africa with just four confirmed reports, from Kenya and Tanzania, since 1961.

Source: Scopus *35, pp. 47–49*

A comprehensive bird survey of Akagera National Park

The bird diversity of Akagera National Park in Rwanda had been reported as declining since the war period of the early 1990s, so it was re-surveyed in 2009–11. A total of 301 species was recorded, of which 75% are resident with a large number of Palearctic-breeding visitors.

Notable were four endemic to the Lake Victoria region, four globally threatened species and nine Near Threatened, as well as several species not recorded at the site previously. The park is obviously regionally important and it is also the only major area of savanna habitat in the country.

Source: Ostrich *86, pp. 267–276*

Fires in forest have medium-term effects on diversity

A fire originating in surrounding farmland in 2010 burned about half of the Kimboza Forest (a reserve in the eastern foothills of the Uluguru Mountains in the Eastern Arc chain of Tanzania. Twenty months later surveys were made in burnt and unburnt areas. Capture rates and species diversity were significantly higher in unburnt areas. Clearly fires need to be prevented from penetrating the forest.

Source: Afr. J. Ecol. *53, pp. 304–311*

Survey finds 17 new territories of Long-billed Tailorbird

The Critically Endangered Long-billed Tailorbird *Artisornis moreaui* occurs at just two sites, separated by *c.*1,000 km: the Njesi Plateau in northern Mozambique and the East Usambara Mountains in northern Tanzania. The latter is home to the majority of the population. Despite much searching, the species has not been found anywhere else. Long-billed Tailorbirds are strongly forest dependent, do not occur in fragments smaller than 300 ha and are confined to relatively open areas, such as canopy gaps, stream lines and forest edges. Smallholder, subsistence agriculture and commercial crops have replaced >60% of the indigenous forest. What remains is often heavily disturbed, severely fragmented and degraded. As part of a multi-year conservation project in the East Usambaras by BirdLife International and the Royal Society for the Protection of Birds, with a focus on the tailorbird, a local field team has been trained to recognise the skulking and often unobtrusive species. The team has surveyed >200 km², recording all of the observations with a resolution of a few metres. The resulting maps show a cluster of points that correspond to an estimated 80–120 territories. They also reveal where human activities are more likely to cause the most disturbance. This field work has resulted in the discovery of 17 new Long-billed Tailorbird territories, which will facilitate targeted conservation efforts.

Source: www.birdlife.org/africa/news/country/tanzania

Indian Ocean islands

First at-sea observations of Mohéli Shearwater

Mohéli Shearwater *Puffinus* (*persicus*) *temptator* is known to breed only on Mohéli, in the Comoro Islands, western Indian Ocean; it was described as recently as the mid 1980s and was previously known only from information collected at the rather difficult-to-access colony. Now, Hadoram Shirihai and Vincent Bretagnolle have described the results of a pelagic expedition to study Mohéli Shearwater at sea off the islands of Grande Comore, Mohéli and Anjouan, in November 2014, presenting information concerning variation in the underwing pattern of *temptator* for the first time (including a number of photographs), as well as its foraging behaviour and behaviour at sea, thereby providing the first natural history data for this poorly known taxon. In addition, observations of an unidentified, smaller shearwater, are also reported.

Source: Bull. Br. Ornithol. Club *135, pp. 216–223*

Anjouan Scops Owl is much commoner than anyone thought

Anjouan Scops Owl *Otus capnodes*, endemic to the island of the same name, one of the Comoros group, was presumed to be extinct until it was rediscovered in 1992 and has been thought to number 100–200 pairs. In 2010 there was a comprehensive survey using point counts in both natural and agroforestry areas. Density was much higher in natural forest but overall the species is now known to be much more widespread over the island than expected, even occurring in highly modified habitats. The authors estimate that there were *c.*3,450 birds in the dry season and 5,450 in the wet season. Such a detailed survey shows the necessity of investing in robust surveys for such species.

Source: Bird Conserv. Intern. *25, pp. 322–334*

Réunion Harrier holding its own (for now)

An assessment of the breeding population of Réunion Harrier *Circus maillardi* showed no difference in two study areas between 1975–76 and 2015. One of the areas though is under increasing human pressure, which may lead to disturbance and destruction and hence to reduced survival and breeding success. Monitoring is needed.

Source: Alauda *83, pp. 161–164*

IBAs in Réunion based on local criteria

Despite being part of France and hence the European Union, and consequently subject to the Natura 2000 scheme, these are not effective for overseas territories. Therefore, Nicolas Laurent *et al.* have developed a method of identifying IBAs in Réunion in seven steps: (1) based on criteria for other areas, eight specific criteria were defined considering Red List classifications; (2) 21 trigger species were established; (3) gathering local distribution data; (4) mapping analyses based on these; (5) a rating system to develop a list of the eight best sites; (6) presence of trigger species confirmed by field visits; and (7) spatial delimitation based on habitat topography, hydrography and infrastructure.

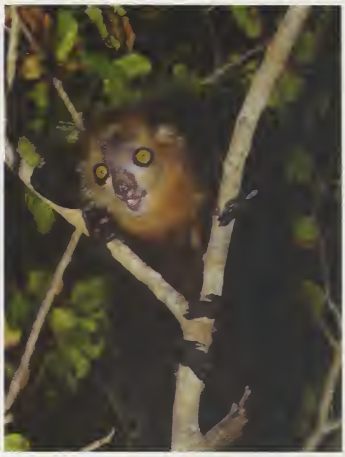
Source: Alauda *83, pp. 175–194*

Tubenoses off Réunion in December 2014

Building on the work of Hadoram Shirihai *et al.* (*cf. Bull. ABC* 22: 21), Bob Flood and others visited the island of Réunion in December 2014 with the aim of learning more

Barau's Petrel / Pétrel de Barau *Pterodroma baraui* (Adam Riley)

Sakalava Rail / Râle d'Olivier *Zapornia olivieri* (Dubi Shapiro)



Aye-aye *Daubentonia madagascariensis* (Phil Palmer)

about the status of tubenoses there. They succeeded in observing both the threatened Mascarene Petrel *Pseudobulweria aterrima* (Critically Endangered) and Barau's Petrel *Pterodroma baraui* (Endangered), but reported the first-named species in much smaller numbers than had the earlier team. Interestingly, they also recorded Bulwer's Petrels *Bulweria bulweria*, whereas a more recent paper by Shirihai & Bretagnolle found comparatively large numbers of presumed Jouanin's Petrels *B. fallax* off the Comoros, but also pointed out that the ranges and temporality of these species in the south-west Indian Ocean remain to be properly elucidated because the two are very similar and most records lack documentation.

Sources: Dutch Birding *37, pp. 295–301;* Bull. Br. Ornithol. Club *135, pp. 348–351*

Three new protected areas in Madagascar

Due largely to the efforts of Asity Madagascar (BirdLife in Madagascar), the government of Madagascar has assigned permanent legal protection to three important sites: the Mahavavy-Kinkony Wetland Complex, Mangoky-Ihotry Wetland Complex and Tsitongambarika Forest. The sites cover almost 800,000 ha and support a rich biodiversity, including many endemic and threatened species, among which are still unnamed, newly discovered frogs and reptiles. Combined, the sites protect 18 threatened and eight Near Threatened bird species, the two wetlands each holding a remarkable 4–5 Endangered (e.g. Sakalava Rail *Zapornia olivieri*) and one Critically Endangered species (Madagascar Fish Eagle *Haliaeetus vociferoides*). The new protected areas will be managed jointly by Asity Madagascar and local communities, an arrangement that has been in place since the sites were made temporary protected areas in 2008.

Source: birdlife.org/africa/news/new-protected-areas-madagascar.

Save Our Species announces first projects under SOS Lemurs

With the announcement of the first nine new lemur conservation projects by SOS (Save Our Species), the future is looking a little brighter for these charismatic primates and the communities who depend on their survival. Specifically, the projects will support direct conservation work in nine different priority locations while helping protect 24 threatened lemur species, including Aye-Aye *Daubentonia madagascariensis*, sifakas *Propithecus* spp. and Indri *Indri indri* as well as many lesser known ones. In total, this first phase of funding will help to protect nine Critically Endangered, nine Endangered and six Vulnerable species.

Source: IUCN SSC Species e-bulletin *October 2015*

Indri *Indri indri* (Liz Leyden)

Southern Africa

Breeding ecology of Rufous-cheeked Nightjar in Zimbabwe

As part of his still-ongoing and prodigious studies of Afrotropical nightjars, Des Jackson has published a detailed behavioural study from Zimbabwe of Rufous-cheeked Nightjar *Caprimulgus rufigena*, which is a summer visitor to southern Africa, over two breeding seasons, using radio-tracking to follow individuals and locate nests. Males

defend territories by regular singing at potential nest sites. Females and other males are attracted to these sites; intruding males are challenged vocally on the ground and during aerial chases; females test possible nest spots, while the resident male watches, sings and / or follows and displays. No nest is prepared; the eggs, usually two, are laid directly onto the ground. Egg losses are high but replacement clutches are sometimes laid. Females incubate by day, males at night; both may feed or roost outside the territory.

Source: Bull. Br. Ornithol. Club *135, pp. 247–266*

Unexpected use of space by wintering Lesser Spotted Eagles

To gather information on how individual Lesser Spotted Eagles *Clanga pomarina* spend their time and use space in their wintering range, three adults were tracked using satellite telemetry. Their wintering ranges stretched across a belt of semi-arid savanna woodland from southern Angola to northern Botswana and Namibia. The eagles usually arrived in southern Africa in November, with 30 October being the earliest arrival date. Their arrival coincided with the southward shift of the Intertropical Convergence Zone (ITCZ) and consequent onset of warm tropical rains and ephemeral food resources. The birds then spent an average of 100 days (maximum 120 days) in their wintering range before departing north, usually in the last week of January or the first half of February (latest departure: 28 February). Although the overall wintering range was very large (up to 112,000 km^2), half of the eagles' activity occurred within just over 10% of their ranges, and large areas were unused or only traversed to reach favoured activity zones and core areas. One bird returned to core areas over eight wintering seasons. The same core areas, particularly the Waterberg, Grootfontein (Namibia) and the eastern and western sides of the Okavango Delta (Botswana), were visited by two other eagles in 2012/2013, although not simultaneously. These results provide important information on areas where conservation activities might be focused.

Source: J. Avian Biol. *(2015) doi: 10.1111/jav.00670*

Cape Vulture / Vautour chassefiente *Gyps coprotheres* (Adam Riley)

Cape Vultures are liked by locals in Cape Province

Cape Vulture *Gyps coprotheres* breeds throughout commercial farmland in Eastern Cape Province. The perception of local farmers was surveyed to determine attitudes to the birds as a possible prelude to active conservation measures. Most respondents cited illegal poaching for traditional medicine as one of the main threats to the species and also stated that on the whole vultures benefit the community. Livestock carcases are often placed out in informal 'restaurants' and the availability of carcases was found to be independent of the intensity of the land use, although the type of carcass varied with more cattle than horses in the less transformed areas and vice versa.

Source: Bird Conserv. Intern. *25, pp. 353–365*

Vulture 'restaurants' aid mammalian predators

Vulture 'restaurants' are provided in many parts of the world to provide extra food for threatened species (see also above). In South Africa they have been found to increase

Brown Hyena / Hyène brune *Hyaena brunnea* (Phil Palmer)

Black-backed Jackal / Chacal à chabraque *Canis mesomelas* (Jacques de Spéville)

the abundance of two mammalian carnivores, Brown Hyena *Hyaena brunnea* and Black-backed Jackal *Canis mesomelas*. It is clear that the wider implications of such activities must be investigated thoroughly.

Source: Afr. J. Ecol. *53, pp. 287–294*

Climate change is aiding Black Sparrowhawk range expansion in South Africa

Black Sparrowhawk *Accipiter melanoleucus* has been expanding its range in South Arica and has recently colonised the Western Cape. Jakob Katzenburger *et al.* studied the species' breeding biology in this area, especially brooding behaviour and how this might affect its continued expansion with the changes in climate being experienced in this 'Mediterranean' region. Chick age was the most important determinant, with adults spending > 50% of time brooding when chicks are seven days old or less, and after three weeks it declined rapidly. Lower temperatures increased the

brooding and the model predicted that in winter adults should brood nearly 100% of the time for chicks up to seven days old. Changes in climate should benefit the species. *Source:* J. Ornithol. *156, pp. 903–913*

Taxonomic proposals

Major breakthrough in avian taxonomy

In December 2014, some 27 papers published simultaneously in eight journals (representing research by more than 200 scientists working in 80 laboratories in 20 countries) reflected the latest major breakthrough in avian taxonomy. Analysis for the flagship paper (Jarvis *et al.* 2014. Whole-genome analyses resolve early branches in the tree of life of modern birds. *Science* 346: 1320–1331) was undertaken on nine supercomputers and took the equivalent of >400 years of single-processor computing. A near-complete understanding of relationships among the major avian groups and the timing of the major events in their evolution has now been reached. Just a few years ago, a study of this kind, based on such a large sample of genomes, would have been impossible. Far more material was examined than was done for the previous most detailed study of relationships among birds, by Hackett *et al.* 2008 (A phylogenomic study of birds reveals their evolutionary history. *Science* 320: 1763–1768). This has resulted in an improvement on the order of the non-passerines adopted by *Howard & Moore 4* (Dickinson & Remsen 2013, Dickinson & Christidis 2014) and the *HBW and BirdLife International Illustrated Checklist of the Birds of the World* (del Hoyo & Collar 2014). All extant bird species fall into two main groups: the Palaeognathae, comprising ratites (ostriches etc.) and tinamous, and the Neognatae, comprising Galloanseres (waterfowl and landfowl) and Neoaves (all of the other groups). Within the Neoaves, the most advanced groups remain the falcons and parrots. A novel finding is that cuckoos and turacos are now placed next to each other again, and not separated by rails and cranes. The large Charadriiformes order (waders, gulls, terns, etc.) is placed just after the Gruiformes (finfoots, rails, cranes), and followed by tropicbirds, divers, penguins and tubenoses. This new order has been principally followed by the recently published *Bird Families of the World* (Winkler *et al.* 2015).

Source: Emu *115, pp. 1–5*

Genetics suggests the African Goshawk complex could be three species

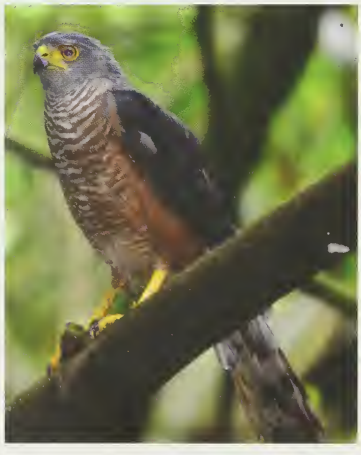
The taxonomy of the African Goshawk *Accipiter tachiro* complex has been subjected to mitochondrial cytochrome c oxidase 1 analysis. The two long-established species based on morphology, African Goshawk *A. tachiro* (races *sparsimfasciatus*, *pembaensis* and *tachiro*) and Red-chested Goshawk *A. toussenelli* (races *lopezi*, *macroscelides*, *toussenelli* and *canescens*) are confirmed with comparatively little genetic variation within each despite a fair amount of morphological variation. The final race, *unduliventer* of the Ethiopian highlands, which has been treated as a race of either African or Red-chested Goshawks, appears to represent a separate branch to the other two groups and therefore could be classified as a third species. An earlier study, by Breman *et al.* (2013. *J. Ornithol.* 154: 265–287) had already reported that genetic divergence between it and other races in the complex is similar to that between *tachiro* and *toussenelii*.

Source: Ostrich *86, pp. 261–266*

Purple Swamphen may comprise several species

While there seems little doubt that the widespread Purple Swamphen *Porphyrio porphyrio* is a complex of species, del Hoyo & Collar (2014. *HBW and BirdLife International Illustrated Checklist of the Birds of the World*) found that it is by no means clear what these species are or where and how to draw lines and distinctions between them. They therefore preferred to leave the whole group lumped pending a more rigorous and comprehensive analysis of characters and ranges. By using molecular phylogenetics, divergence time estimates and population genetics, Garcia & Trewick (2015) found that Purple Swamphen is indeed polyphyletic and that its subspecies groups may represent species-level lineages, with Western Swamphen *P. porphyrio* (France, Iberia and Morocco) and African Swamphen *P. madagascariensis* (Egypt, sub-Saharan Africa and Madagascar) occurring in our region.

Source: Auk *132, pp.140–155*



Red-chested Goshawk / Autour de Toussenel *Accipiter toussenelli macroscelides* (Lionel Sineux)

Purple Swamphen / Talève sultane *Porphyrio porphyrio madagascariensis* (Lionel Sineux)

Are Tawny Owls from the Maghreb a distinct species?

A re-evaluation, by Jorge Doña and co-workers, of the taxonomic status of Tawny Owls *Strix aluco* from Iberia (the *S. a. sylvatica* to *S. a. aluco* clade) and those from north-western Africa (*S. a. mauritanica*) using DNA barcoding, revealed a gap between the two which supports the view that the Strait of Gibraltar is an important barrier for phylogeography. The study also suggests species status for taxon *mauritanica*.

Source: Mitochondrial DNA *doi: 10.3109/19401736.2015.1089573*

Dusky Long-tailed Cuckoo monotypic, for now

Two apparently geographically differentiated song types are well known to exist for Dusky Long-tailed Cuckoo *Cercococcyx mechowi*, approximately east and west of the Sanaga River, in Cameroon, but no morphological differences are known. The subspecies *wellsi* was described from Cameroon, but its type locality reflects the same taxon as the nominate, described from Angola. The name '*occidentalis*', mentioned in the recent non-passerine volume of the HBW/BirdLife checklist to the birds of the world (del Hoyo & Collar 2014) as having been introduced by Claude Chappuis, must be regarded as a nomen nudum, and cannot be applied to populations west of Cameroon.

Source: Bull. Br. Ornithol. Club *135, pp. 352–353*

Miombo Double-collared Sunbird is two species

In a recent paper published in *Honeyguide*, Michael Irwin, Pete Leonard and the late John Colebrook-Robjent propose that the two races of Miombo Double-collared Sunbird *Cinnyris manoensis* be treated as separate species: Western Miombo Sunbird *C. gertrudis* (formerly *C. m. pintoi*) and Eastern Miombo Sunbird *C. manoensis* (formerly *C. m. manoensis*). The two taxa have been found living alongside each other in a few areas along the Muchinga Escarpment in Zambia where they favour slightly different habitats. There are also differences in size, structure, plumage, voice, nest and eggs. Genetic analysis suggests that they are not even each other's closest relatives.

Adult male Western Miombo Sunbird / Souimanga du Miombo occidental *Cinnyris gertrudis*, Mutinondo Wilderness, Mpika District, Northern Province, Zambia, September 2011 (Nik Borrow)

Adult male Eastern Miombo Sunbird / Souimanga du Miombo oriental *Cinnyris manoensis*, Harare, Zimbabwe, January 2012 (John Sawyer)

Where their distributions overlap, birds are separable in the field (see figures above). Western Miombo Sunbird inhabits purer miombo and is the smaller of the two, with a shorter body and a finer bill. Males have a narrow red breast-band, long yellow pectoral tufts and dull greyish uppertail-coverts. They add a long descending trill at the end of their song and their nest is constructed mainly of *Usnea* lichen. Eastern Miombo Sunbird prefers scrubby woodland around rocky areas and is a larger and longer bird with a slightly heavier bill. Males have a broader red breast-band, shorter yellow pectoral tufts and metallic blue or violet uppertail-coverts. They incorporate longer, clear whistled notes in their song and build a nest of mainly grass.

Much is still to be learnt about the birds and observers are encouraged to send photographs, sound-recordings and details of any observations of feeding or breeding behaviour to Pete Leonard, e-mail: pete@pleonard3.wanadoo.co.uk.

Source: Honeyguide *60, pp. 54–61*

Montane White-eye / Zostérops alticole *Zosterops poliogastrus* (Adam Riley).

Afrotropical white-eye diversity rockets sky-high

The Eastern Afromontane biodiversity hotspot composed of highly fragmented forested highlands (sky islands) harbours exceptional diversity and endemicity, particularly among birds. To explain the high diversity within this region, models founded on niche conservatism have been offered, although detailed phylogeographic studies are limited to a few avian lineages. Siobhan Cox *et al.* have been studying the Afrotropical white-eyes, genus *Zosterops*, which includes both montane and lowland members, to test the roles of niche conservatism versus niche divergence in the diversification and colonisation of East Africa's sky islands. The white-eyes are a typically homogeneous family with an exceptional colonising ability, but in contrast to their diversity on oceanic islands, continental diversity is considered depauperate and has been largely neglected. Molecular phylogenetic analysis of *c.*140 taxa revealed extensive polyphyly among different populations of Montane White-eye *Z. poliogastrus*. These larger endemic birds are shown to be more closely related to taxa with divergent habitat types, altitudinal distributions and dispersal abilities than they are to populations of restricted endemics that occur in neighbouring montane forest fragments. A repeated transition between lowland and highland habitats over time demonstrates that diversification is explained by niche divergence. Cox *et al.* also highlight an underestimation of diversity compared to morphological studies, with implications for both taxonomy and conservation. Molecular dating suggests that the spatially extensive African radiation arose exceptionally rapidly (1.0–2.5 million years ago) during the fluctuating Plio-Pleistocene climate, which may have provided the primary driver for lineage diversification.

Source: Mol. Ecol. *doi: 10.1111/mec.12840*

Different lineages of Spectacled Tetraka are in process of merging

The merger of formerly isolated lineages is hypothesised to occur in vertebrates only under certain conditions, and despite many demonstrated instances of introgression between taxa in secondary contact, examples of lineage mergers are rare. However, preliminary mtDNA sequencing of a Malagasy passerine, Spectacled Tetraka *Xanthomixis zosterops*, has indicated a possible instance of merging lineages. Nick Block *et al.* tested the hypothesis that *X. zosterops* lineages are merging, by comparing mtDNA sequence and microsatellite data, as well as mtDNA sequence data from host-specific feather lice in the genus *Myrsidea*. Spectacled Tetraka comprises four deeply divergent, broadly sympatric, cryptic mtDNA clades that probably started diverging *c.*3.6 million years ago. Despite this, the microsatellite data indicated that the *X. zosterops* clades are virtually panmictic. Three major phylo-groups of *Myrsidea* were recovered, supporting previous allopatry of the *X. zosterops* clades. In combination, the datasets from *X. zosterops* and its *Myrsidea* document a potential merger of previously allopatric lineages that probably date to the Pliocene. This represents the first report of sympatric apparent hybridisation among more than two terrestrial vertebrate lineages. Further, the mtDNA phylogeographic pattern of *X. zosterops*, namely the syntopy of more than two deeply divergent cryptic clades, appears to be a novel scenario among vertebrates.

Source: Ecol. & Evol. *doi: 10.1002/ece3.1639*

Is the Forest Robin really one species?

Giovanni Boano and his co-workers have reported the occurrence of the recently described forest robin *Stiphrornis* (*erythrothorax*) *pyrrholaemus* (see *Bull. ABC* 16: 14–15) in the Makokou area, north-east Gabon, more than 600 km north-east of its type locality, in dense primary to secondary forest. Previous records of *Stiphrornis* from the same area had been referred to *S.* (*erythrothorax*) *xanthogaster*, an attribution that Boano *et al.* have confirmed on the basis of museum specimens. Although several recent sources treat all *Stiphrornis* as a single species (e.g. Dickinson & Christidis 2014), the findings of this study contrarily suggest the sympatric co-existence of two *Stiphrornis* taxa and that they should be treated as separate species under the Biological Species Concept.

Source: Zootaxa *4032, pp. 127–133*

Blue chaffinches of the Canary Islands represent two distinctive species

A study of morphometrics, vocalisations and DNA by Sangster *et al.* (2015) suggests that the blue chaffinches of the Canary Islands represent two distinctive species: Tenerife Blue Chaffinch *Fringilla teydea* and Gran Canaria Blue Chaffinch *F. polatzeki*. The latter consequently becomes Europe's rarest songbird species and should be classified as Critically Endangered. Its long-term survival in the wild currently depends on an area of < 20 km^2 in south-west Gran Canaria.

Source: J. Avian Biol. *46, pp. 1–8*

Tenerife Blue Chaffinch / Pinson bleu de Tenerife *Fringilla teydea* (Phil Palmer)

Five new rails from Macaronesia ... all extinct

Five new species of recently extinct rails have been described from Madeira and the Azores by Josep Alcover and colleagues. All of the new species are smaller in size than their presumed ancestor, Water Rail *Rallus aquaticus*. Two inhabited Madeira: *Rallus lowei* was a flightless rail with a robust tarsometatarsus and reduced wings that lived on Madeira itself, while *Rallus adolfocaesaris*, a flightless and more gracile species than its Madeiran counterpart, inhabited Porto Santo. So far, six Azorean islands have been paleontologically explored, and remains of fossil rails have been found on all of them. The best-preserved remains from three islands (Pico, São Miguel and São Jorge) are described in the present paper: *Rallus montivagorum* was smaller than *R. aquaticus* with a somewhat reduced flying capability, and inhabited Pico; *Rallus carvaoensis*, a small flightless rail with short stout legs and a bill apparently more curved than in *R. aquaticus*, was restricted to São Miguel; and *Rallus minutus* was a very small (approaching Inaccessible Rail *Atlantisia rogersi* in size) flightless rail with a shortened robust tarsometatarsus, and occurred on São Jorge. Rail fossils are available from three other Azorean islands (Terceira, Graciosa and Santa Maria), and the authors also describe an extraordinarily complete fossil of an unnamed *Rallus* preserved in silica from the locality of Algar do Carvão on Terceira.

Source: Zootaxa *4057, pp. 151–190*

Internet resources

West African Bird DataBase milestone

October 2015 marked the five-year anniversary of the West African Bird DataBase (WABDaB). Starting out as the NiBDaB, the Niger Bird DataBase, the WABDaB now also covers Chad and Burkina Faso, and contains more than 57,000 records of 523 species, with breeding records for 161, as well more than 2,500 photos of 372 species. Among the records are many first observations for Niger and Chad, supported by photographs, as well as two first observations for all of West Africa: a Greater Kestrel *Falco rupicoloides* in eastern Niger and Chestnut Sparrows *Passer eminibey* in central Chad. Information from the WABDaB has been used as follows, e.g. to improve and update maps in the field guide for West Africa by Borrow & Demey; assess the Africa-wide conservation status of vultures, Secretary-bird *Sagittarius serpentarius* and parrots; formulate species action plans for birds such as Eurasian Spoonbill *Platalea leucorodia*; assess the status of terrestrial and freshwater fauna in West and Central Africa by IUCN; and assess the effects of climate change on bird distribution in a BirdLife International project. As a means of increasing involvement of local populations, the WABDaB also includes, and actively collects, information on bird names in local languages and bird stories from local cultures. Over the next five years the organisers hope to double number of records to more than 100,000, with special attention to Burkina Faso and Chad. They will also continue to improve the ease of extraction of information from the WABDaB, and add new features as time becomes available to do so. Putting the WABDaB on a sounder financial footing represents another priority.

Source: Joost Brouwer in litt. *to African Birding, December 2015*

Greater Kestrel / Crécerelle aux yeux blancs *Falco rupicoloides* (Mark Anderson)

Secretary-bird / Messager sagittaire *Sagittarius serpentarius* (Mark Anderson)

Raptor studies using satellite-telemetry

On the website of the World Working Group on Birds of Prey (WWGBP), www.Satellite-Telemetry.de, some of the results of satellite-telemetry studies are presented. Using this technique, studies of 15 different diurnal bird of prey species have been conducted since 1992 by Bernd Meyburg and his many colleagues. Results published so far can be found on the homepage www.Raptor-Research.de, where many papers can be downloaded as PDFs.

Source: http://satellite-telemetry.jimdo.com/english/information/

Historic volumes on birds of Sudan

Pdfs of the Catalogue of Sudan Birds based on the collection in the Sudan Government Museum (Natural History) by W. Wedgwood Bowen (1926, 1931) can be consulted and downloaded free of charge at https://digitalt.uib.no/handle/1956.2/2538 (Part 1: Struthionidae to Picidae) and https://digitalt.uib.no/handle/1956.2/2547 (Part 2: Alaudidae to Fringillidae).

Source: Nazik Nurelhuda in litt. *February 2015*

Corrigendum *Bull. ABC* 22(2)

In the note on the first records for Guinea-Bissau of Vitelline Masked Weaver *Ploceus vitellinus*, the correct name of the *Acacia* tree in Fig. 1 (p. 200) is *A. macrostachya* (not *A. macrothysta*).

Further notes on the natural history of the Ethiopian Bush-crow *Zavattariornis stresemanni*

Andrew J. Bladon[a], Sam E. I. Jones[b], Nigel J. Collar[c], Yilma Dellelegn[d], Paul F. Donald[e], Kai Gedeon[f], Rhys E. Green[a,e], Claire N. Spottiswoode[a,g], Till Töpfer[b] and Mengistu Wondafrash[d]*

Notes supplémentaires sur l'histoire naturelle du Corbin de Stresemann *Zavattariornis stresemanni*. Le Corbin de Stresemann *Zavattariornis stresemanni* est une espèce endémique charismatique et « Menacée d'extinction » de l'Éthiopie du sud, dont la biologie demeure peu étudiée. Les auteurs présentent des notes et observations de terrain de 2008–14 concernant plusieurs aspects de son comportement et de sa morphologie. Le corbin niche de manière coopérative en réponse aux deux saisons de pluie locales, mais la taille du groupe et la fidélité des aides semblent varier. Des nids du corbin ont été trouvés pour la première fois sur des structures artificielles (un poteau électrique et un pylône). Des données supplémentaires concernant la parade sont fournies. Les juvéniles peuvent être distingués par la coloration faciale plus sombre, le gosier rouge vif et les cris d'appel distinctifs. Les plumes du corps des adultes sont légères et de faible densité, et il apparaît que la phénologie de la mue des corbins coïncide largement avec la période de nidification, ce qui est peu commun chez les oiseaux. La dispersion post-nuptiale est souvent limitée, bien que des preuves anecdotiques et une poignée d'observations suggèrent que certains individus couvrent des distances plus grandes entre les périodes de nidification. La première prédation d'un corbin est rapportée, supplémentée de notes sur d'autres interactions interspécifiques. Enfin, le corbin a été trouvé pour la première fois au nord-ouest de Yabello (une petite extension de son aire de distribution), et les implications sont examinées des mouvements locaux et des fluctuations de la répartition dans le contexte de l'apparente limite climatique de l'aire de distribution de l'espèce.

Summary. The Ethiopian Bush-crow *Zavattariornis stresemanni* is a charismatic and Endangered endemic bird of southern Ethiopia, whose general biology remains under-studied. We present field notes and observations from 2008 to 2014, covering many aspects of the species' behaviour and morphology. Bush-crows breed co-operatively in response to both of the local rainy seasons, but group size and fidelity of helpers appears to be variable. Bush-crow nests were found for the first time on man-made structures—a low power distribution pole and a tall electricity pylon. The display of one bush-crow to another is further described. Juveniles can be identified by darker coloration around the face, bright red gape and distinctive begging calls. Adults possess lightweight, low-density body feathers and it appears that bush-crows have a moult phenology that overlaps extensively with breeding, a trait unusual in birds. Post-breeding dispersal is often limited, although anecdotal evidence and a handful of observations suggest that some individuals cover greater distances between breeding seasons. We report the first confirmed predation of a bush-crow, and supplement this with notes on other interspecific interactions. Finally, bush-crows were found for the first time north-west of Yabello (a small range extension), and we discuss the implications of local movements and range fluctuations in the context of the species' apparent climatic range limitation.

Ethiopian Bush-crow *Zavattariornis stresemanni* is an enigmatic species of corvid, apparently most closely related to Asian ground-jays *Podoces* (Ericson *et al.* 2005), and is confined to an area of park-like thornbush, short-grass savanna and pastures in southern Ethiopia. Ten years ago a reported decline in numbers (Borghesio & Gianetti 2005) led to its upgrading to the IUCN Red List category Endangered, which treatment has been maintained until the present (BirdLife International 2015). This triggered new initiatives to assess its needs more precisely (Mellanby *et al.* 2008, Donald *et al.* 2012, Jones 2013). The bush-crow is a co-operative breeder (Benson 1942, Fry *et al.* 2002) that lives in small groups, occasionally congregating in flocks of up to 30 birds, and exhibits a number of interesting social behaviours, e.g. allofeeding, allopreening and the use of bare skin around the eye in signalling (Gedeon 2006). Its range is confined to a pocket of cooler, drier and more seasonal climate than is found elsewhere in the region, which is thought to limit this otherwise common and seemingly generalist species to a global distribution of <6,000 km^2 (Donald *et al.* 2012). Here we assemble observations collected during recent research to

supplement the natural history notes already provided by Dellelegn (1993), Gedeon (2006) and Ross *et al.* (2009). Further information on food and foraging will be presented elsewhere (Jones *et al.* in prep.).

The following observations were made during frequent visits by the authors between 2008 and 2014 to areas throughout the species' range, the limits of which were detailed in Donald *et al.* (2012). The locations of sites mentioned in the text are shown in Fig. 1.

In 2013, 57 birds were trapped, measured and individually colour-marked by SEIJ & AJB. Behavioural studies (outlined in Jones 2013) were conducted on these birds in 2013 and 2014. Data on individual groups' ranges were collected, broadly following a methodology outlined by Bowden *et al.* (2008): a set aspect (south) and distance (25 m) to a focal bird was adopted and the group followed on foot by 'shadowing' the bird's movements while the observer (SEIJ) tracked the path using the 'track' function on a Garmin GPSMAP 62s unit. Coordinates were then adjusted by 25 m north to assess 'true' movements.

Breeding season

The species was initially reported to breed in February–March, in response to the primary wet season in the region (Benson 1942). However, breeding has since been more commonly observed in May–June, prompting the suggestion that birds 'may be double-brooded or have an extended breeding season' (Collar & Stuart 1985). There is still no solid evidence for double-brooding, but our observations support the existence of a variable or extended breeding season. It is now clear that breeding activity is influenced by annual variations in the timing and intensity of rains, as is true of the sympatric White-tailed Swallow *Hirundo megaensis* (Bladon *et al.* 2015) and many other African arid-zone birds (Immelmann 1973, Craig 2012).

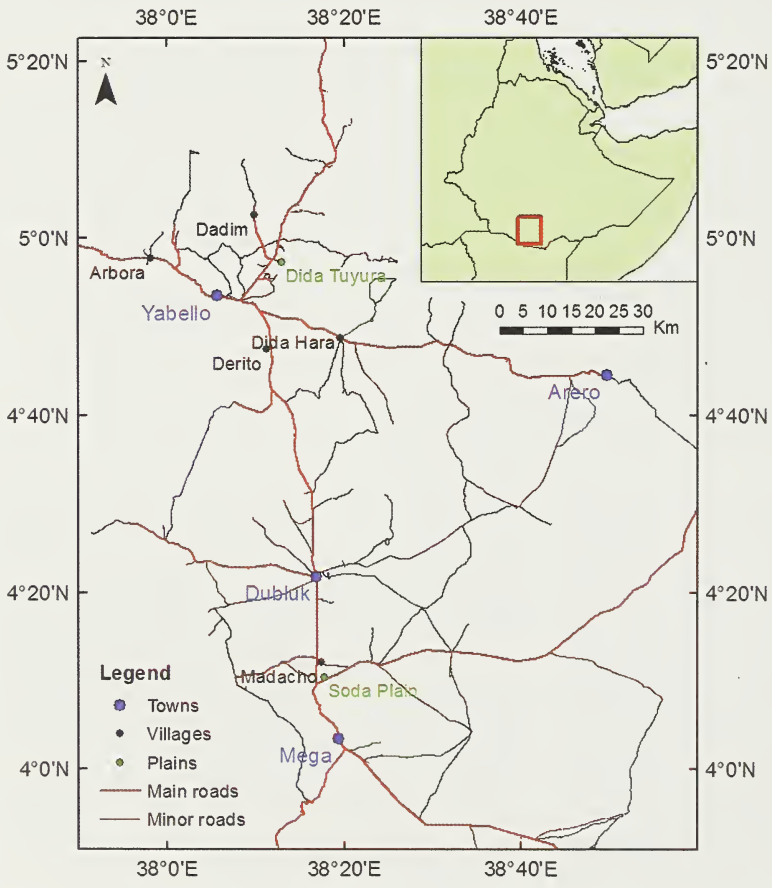


Figure 1. Map of the study region, showing the locations of sites referred to in the text. Inset: the location of the study region within Ethiopia.

Carte de la zone d'étude, montrant la position des sites mentionnés dans le texte. En médaillon : la situation de la zone d'étude à l'intérieur de l'Ethiopie.

Gedeon (2006) reported that the first rains in 2005 fell on 27 February, stimulating much bush-crow nest-building activity, none of which had been completed by 6 March. Between 20 and 31 May 2011, KG found a family at Dida Hara with at least one fledged but dependent juvenile, whereas most other groups were still tending nests. In 2013 AJB recorded the onset of rain at the end of March, saw birds visiting nests on 27 March, and heard young begging in nests on 29 March and 6 April. He and SEIJ observed the first fledgling on 9 May, but another pair was observed building a new nest as late as 11 May (SEIJ), and some were still tending young in the nest at the end of the month; possibly these were inexperienced birds or individuals that had ceased helping other groups partway through the season (see below). In 2014 the rains started in mid March (J. Denge pers. comm.), with nest-building and tending observed regularly throughout April; the first juvenile was seen on 17 May, 2.5 km west of Dida Hara, with a group of three juveniles on 18 May near Arbora. However, a nest with chicks heard begging was found a month later on 15 June, 3.5 km north of Arbora. Clearly, bush-crows breed in response to the onset of rain, but if conditions are favourable the breeding season may be prolonged. Given the continual and protracted care that groups show for juveniles, it seems probable that bush-crows produce only a single brood per season and that late nests represent either re-nesting attempts or inexperienced birds trying to breed.

A second, less intense rainy season between September and November (EWNHS 2001) also stimulates some breeding activity. On 17 November 2012, PFD, AJB & REG made two observations of nesting: the first 4 km east of Yabello, where a group of bush-crows was tending a nest, and the second on Soda Plain where a group was observed building a nest (it is, however, unclear whether or not bush-crows maintain nests year-round, and this observation may not represent evidence of breeding). On 19 and 20 November, a further three nests were being visited by bush-crows, two east of Dida Hara and one on Soda Plain (AJB, REG). On 28 October 2013, also on Soda Plain, a fledged juvenile was observed repeatedly being fed by 1–2 adults (NJC). We have also recorded courtship behaviour at this time of year (see below). Two of the 57 birds captured in May 2013 appeared to be immatures, which were probably raised in the second wet season of the previous year (AJB, SEIJ; see below).

Nest sites

Bush-crows construct large, crudely spherical or semi-cylindrical nests of thick thorny twigs, surrounding a dung- and mud-lined inner chamber reached by a tunnel with an entrance in the upper part of the structure (Fig. 2a). These are placed in the crowns of trees, the upper half sometimes sitting proud of the canopy (Benson 1942, Dellelegn 1993, Töpfer & Gedeon 2012; pers. obs.). Nests are usually built in *Acacia* spp., *Balanites aegyptiaca* or *Commiphora africana*, mostly between 3.0 and 6.5 m above ground (mean = 4.88 m: Töpfer & Gedeon 2012) and are normally solitary (Fry *et al.* 2002). However, we have several observations of two, one of four and one of seven nests in a single tree (Fig. 2b), but we lack evidence of whether more than one nest was in use simultaneously. Nest height is necessarily limited by the height of the trees used; the highest nest of 210 around Dida Hara was 14 m above ground (Töpfer & Gedeon 2012). During transects across the range in 2013 and 2014, AJB found only 17 of 243 nests to be higher than 15 m above ground, with a mean height of 8.9 m, in trees with a mean height of 9.6 m. This compares to a mean tree height of 7.1 m across transects, suggesting that bush-crows preferentially select taller trees to nest in, presumably to permit them to gain extra height for the nest.

The use of man-made structures had not previously been reported, but we recently observed two such instances. On 26 October 2013, near Madacho, NJC found a nest on a power distribution pole *c.*7 m above ground: it was balanced on the metal cross-arm and apparently wedged between the top of the central pole and both the central cable and insulator (Fig. 3a). None of the twigs appeared to be intertwined with any part of the powerline to hold the nest in place, and its vulnerability was evident from the substantial remains of an earlier nest (in two halves; or possibly two nests) below the same pole. The line ran through scattered trees of similar height and structure to others often used for nesting, and past some village huts; the nest itself was judged to be roughly as high as or possibly a little higher than the upper canopies of the adjacent trees. On 10 May 2014, west of the main

Figure 2. Structure and location of Ethiopian Bush-crow *Zavattariornis stresemanni* nests: **(a)** the entrance to a nest found low in a tree; **(b)** a large *Acacia* containing seven nests (Claire N. Spottiswoode and Paul F. Donald)

Structure et emplacement de nids du Corbin de Stresemann *Zavattariornis stresemanni* : **(a)** l'entrée d'un nid placé à faible hauteur dans un arbre ; **(b)** un grand *Acacia* avec sept nids (Claire N. Spottiswoode et Paul F. Donald)

road 29 km north-east of Yabello and only 6.5 km from the edge of the bush-crow's range, AJB found a nest on an electricity pylon. The nest was *c.*90% up the main tower, at a height of at least 25 m, making it by far the highest nest reported. It was supported by, but seemingly not secured to, the framework of the pylon. Two birds were seen visiting the nest (Fig. 3b). The immediate vicinity again contained trees similar in height to those in which nests are frequently found, but these contained no nests.

The energetic costs of visiting the high pylon nest must be greater than for lower nests in trees (Zach 1979), and nesting on pylons may increase the risk to bush-crows from aerial predator attack. However, it is perhaps the case that the extra height better cools the nest, reducing heat-stress and perhaps increasing breeding success given the species' apparent temperature sensitivity (Donald *et al.* 2012, Töpfer & Gedeon 2012, 2014, Jones 2013). This might explain the difference in mean height of 4.88 m found by Töpfer & Gedeon (2012) and 8.9 m presented here, as the 2012 figure comes from Dida Hara, near the centre of the range, which is perhaps cooler on average than sites across the range, which produced the new, higher mean (Donald *et al.* 2012). Cooling might also explain why many nests in trees sit proud of the canopy.

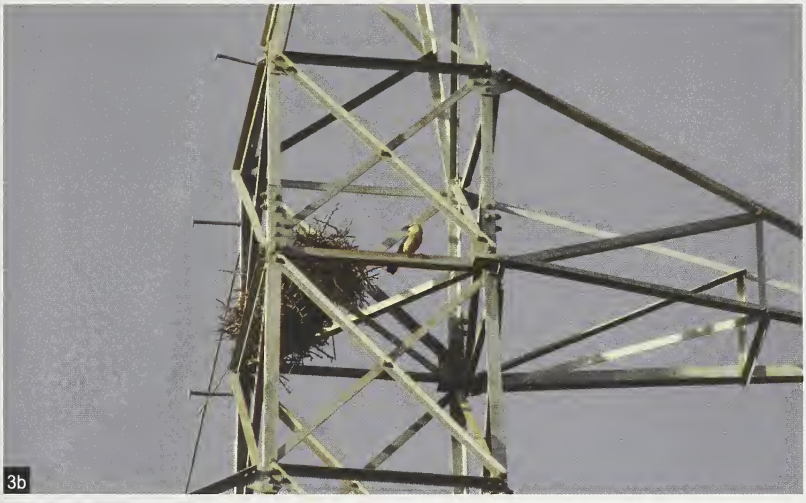


Figure 3. First reports of Ethiopian Bush-crows *Zavattariornis stresemanni* nesting on man-made structures: **(a)** nest on a power distribution pole found in October 2013; **(b)** active nest on an electricity pylon found in May 2014, high above the surrounding trees (Nigel J. Collar and Andrew J. Bladon)

Premières observations du Corbin de Stresemann *Zavattariornis stresemanni* nichant sur des structures artificielles : **(a)** nid sur un poteau électrique trouvé en octobre 2013 ; **(b)** nid actif construit beaucoup plus haut que les arbres environnants sur un pylône, trouvé en mai 2014 (Nigel J. Collar et Andrew J. Bladon)

Display

Gedeon (2006) described some display behaviours related to allofeeding, nest building and courtship. On 26 October 2013, just north of Soda Plain, NJC & PFD encountered two bush-crows that were remarkably confiding in their behaviour, first in a low tree and then on the ground, permitting the observers to approach within a few metres. On the ground one bird walked a few yards behind the other, with the observers quietly following them. After a minute or so the bird following adopted a posture recalling a displaying male dove, in which it stretched its neck up and forward at *c.*45°, raising the crown feathers so that its head appeared larger (with seemingly an inflated bulge on the neck-sides), tilting the head forward so the bill pointed 30° downwards, exaggerating its steps so that they appeared slightly higher and slower, and fanning its tail to twice its usual width and tilting it downwards so that its tip dragged along the ground (Fig. 4). During this display, the fleshy patch behind the blue eye-ring was prominently displayed, and the eye appeared to be bulging and half-closed. This appeared to be a courtship display by a male to a female, but it might conceivably have been a mate-guarding display if the bird in question was somehow registering the human observers as threats to its mate or status. Gedeon (2006) recorded a similar display, except that the performer led rather than followed the second bird; he judged it to be a courtship display by a nest-building pair.

Figure 4. Ethiopian Bush-crow *Zavattariornis stresemanni* displaying to another; stretching its neck up and forwards, fanning its tail and exaggerating its steps (Paul F. Donald)

Corbin de Stresemann *Zavattariornis stresemanni* paradant devant un congénère : étirant le cou vers le haut et en avant, ouvrant la queue en éventail et exaggérant ses pas (Paul F. Donald)

Figure 5. Colour-marked Ethiopian Bush-crow *Zavattariornis stresemanni* and its partner reciprocally allopreening (Andrew J. Bladon)

Corbin de Stresemann *Zavattariornis stresemanni* (marqué de bagues de couleur) et son partenaire se lissant mutuellement les plumes (Andrew J. Bladon)

Figure 6. Ethiopian Bush-crow *Zavattariornis stresemanni* nestlings taken from a nest in June 2008, showing large, pale gape flanges typical of chicks raised in dark nests (Claire N. Spottiswoode)

Oisillons du Corbin de Stresemann *Zavattariornis stresemanni* sortis d'un nid en juin 2008, montrant les grandes commissures pâles, typiques de jeunes élevés dans un nid sombre (Claire N. Spottiswoode)

Gedeon (2006) noted that 'allofeeding and allopreening remained, as far as could be observed, unreciprocated'. However, on 24 May 2014, AJB observed two birds reciprocally allopreening (Fig. 5). These birds appeared to be a pair, perched in a separate tree and paid little attention to the rest of their group, so it may be that, although allopreening is widespread, reciprocation is limited to breeding pairs. Allopreening of juveniles by their attendant adults is also common.

Nestlings and juveniles

Benson (1942) described the eggs of Ethiopian Bush-crow when he collected two clutches (one of four eggs and one of six). On 14 June 2008 a few kilometres north of Dubluk, an occupied bush-crow nest was found in a tree so low that the nest chamber could be accessed by hand from the roof of a vehicle, by P. Dolman. It contained two naked and blind nestlings probably less than one week old, apparently the first time young in the nest have been photographed (Fig. 6). This nest was attended by at least five adults; four were seen to fly out of it in succession as it was approached, one of them carrying a faecal sac, which it smeared on the first branch of a nearby tree on landing.

Dellelegn (1993) and Fry *et al.* (2002) briefly described the differences between adult and juvenile plumage, in the field the most obvious of which are the grey-white tint to the juvenile head and neck feathers (which in adults are often brown-white, due to staining from the local soil; Fig. 7), and the dark skin around the eye (cobalt-blue in adults). Feathering covering the nares is duskier in young birds, creating (in conjunction with the dark ocular/loral skin) a dark 'saddle' over the bill (Fig. 8) and affording the juveniles (to some observers, at least) a striking similarity to the face of a common dolphin *Delphinus* sp.! Juveniles also display a distinctive pale pink bill base, and the gape is bright pink-red (Fig. 7). In late June 2014, juveniles a few weeks post-fledging were still readily distinguishable from adults when AJB left the study site.

Two birds captured on 6 May 2013 (SEIJ & AJB) near Madacho displayed characteristics of juveniles from a previous breeding season. Both had noticeably darker blue facial skin with the residual pink bill base (Fig. 9; compare 9a, a presumed subadult, with 9b, an adult). Notably, these birds were not recently fledged (judged by wear to the remiges and rectrices). These characteristics were observed on no other individual captured (n = 55) nor observed in the field.

Two calls were documented from juveniles, adding to the vocal repertoire of the species previously described by Dellelegn (1993) and Gedeon (2006). Young in the nest emit a constant soft and squeaky *kew*, recordings of which

Figure 7. Ethiopian Bush-crow *Zavattariornis stresemanni* family in an *Acacia*, permitting comparison of the differences in plumage between adult (right) and juveniles (Paul F. Donald)

Famille de Corbins de Stresemann *Zavattariornis stresemanni* dans un *Acacia*, montrant les différences de plumage entre adulte (à droite) et juvéniles (Paul F. Donald)

Figure 8. Juvenile Ethiopian Bush-crows *Zavattariornis stresemanni* lack the cobalt-blue eye-ring of adults, instead possessing a black mask, darker feathering over the nares and a distinctive pale pink bill base; compare Fig. 9a (Sam E. I. Jones)

Le Corbin de Stresemann *Zavattariornis stresemanni* juvénile ne possède pas le cercle oculaire bleu cobalt de l'adulte, mais a un masque noir, les plumes couvrant les narines plus sombres, avec la base du bec rose pâle ; comparer avec Fig. 9a (Sam E. I. Jones)

have been archived online (www.xeno-canto.org/131679, 131678). During the post-fledging period, young emit a series of loud and insistent *kah* and *kew* notes, which are distinctly muffled during feeds, resembling the allofeeding *kaw kaw kaw* described by Gedeon (2006) (Fig. 10). These begging calls are similar to the juvenile contact call described by Dellelegn (1993), but the tone is sharper and the usage clearly for begging rather than contact. The calls are distinctive and almost constant during active periods, making location of post-fledging groups particularly easy. They have been documented and archived online (www.xeno-canto.org/140133, 140131).

We have, on a number of occasions, observed juveniles fanning their open wings, both while perched and on the ground (Fig. 11). This behaviour does not seem to be related to begging, and its function is unclear, but it is notable that we have observed it only in juveniles.

Figure 9. Comparison of the facial features of Ethiopian Bush-crows *Zavattariornis stresemanni*: **(a)** presumed subadult; **(b)** adult (Sam E. I. Jones)

Comparaison des caractéristiques faciales du Corbin de Stresemann *Zavattariornis stresemanni* : **(a)** individu présumé subadulte ; **(b)** adulte (Sam E. I. Jones)

Morphology and moult

Biometrics

Biometric data have not previously been collated for the species, with quoted figures (e.g. mass of *c.*130 g) in Madge (2009) probably speculation. Table 1 presents biometrics of 57 live individuals trapped in the field and 14 specimens at the Natural History Museum, Tring, UK. Biometrics were examined for bimodality, but there was little evidence to suggest these are useful for sexing

Table 1. Biometric summary of 57 Ethiopian Bush-crows *Zavattariornis stresemanni* trapped for colour-marking in 2013 and, except for the last two variables, of 14 specimens at the British Natural History Museum (NHMUK), Tring, UK.

Tableau 1. Données biométriques de 57 Corbins de Stresemann *Zavattariornis stresemanni* capturés pour être marqués de bagues de couleur en 2013 et, sauf pour les deux dernières variables, de 14 spécimens au British Natural History Museum (NHMUK), Tring, Royaume-Uni.

	Birds caught in 2013 *n* = 57		NHMUK, Tring, specimens *n* = 14	
Value	Mean ± 1 SD	Range	Mean ± 1 SD	Range
Flattened wing chord (mm)	141.8 ± 3.7	135–149	141.4 ± 3.5	137–148
Tail (mm)	125.2 ± 5.6	108–135	125.0 ± 3.8	121–135
Culmen–skull (mm)	35.5 ± 2.0	31.1–41.1	34.2 ± 2.2	30.3–37.7
Head and bill (mm)	63.1 ± 1.9	59.5–67.5	65.6 ± 4.0	55.8–71.7
Maximum tarsus (mm)	45.2 ± 1.5	41.1–48.6	-	-
Mass (g)	109 ± 6.1	97–124	-	-

Figure 10. Adult Ethiopian Bush-crow *Zavattariornis stresemanni* feeding a juvenile (Andrew J. Bladon)

Corbin de Stresemann *Zavattariornis stresemanni* adulte nourrissant un juvénile (Andrew J. Bladon)

Figure 11. Young Ethiopian Bush-crow *Zavattariornis stresemanni* fanning its wings; the reason for this behaviour is not apparent (Paul F. Donald)

Jeune Corbin de Stresemann *Zavattariornis stresemanni* déployant ses ailes en éventail ; la raison de ce comportement est inconnue (Paul F. Donald)

individuals. We also found a range of biometric values in individuals with well-developed brood patches. If these are presumed to be females, then the lack of biometric bimodality is supported, but it is possible that males assist with incubation, and develop brood patches too, although this is rare in corvids (Goodwin 1986). Biometric bimodality is recorded in other corvids, but with a sufficient degree of overlap between the distributions to present uncertainty if used alone for sexing individual birds (Fletcher & Foster 2010, Giammarino *et al.* 2012).

Feather and plumage morphology

Simple morphology was examined on trapped birds. Bush-crows have ten primaries, six secondaries and three tertials. Primaries 10–5 are emarginated. As in many corvids, the first tertial (outermost from the body) is longer than the sixth secondary. There are 12 rectrices. Feathers were noticeably lightweight and low-density, particularly on the belly, breast, axillaries and crural areas (Fig. 12), which is interesting when considering the species' apparent climatically driven range-restriction (Donald *et al.* 2012). Perhaps light, low-density

Figure 12. Typical light feathering observed on the belly, breast, axillaries and crural areas of Ethiopian Bush-crows *Zavattariornis stresemanni* (Sam E. I. Jones)

Plumage léger caractéristique sur le ventre, la poitrine, les axillaires et les cuisses du Corbin de Stresemann *Zavattariornis stresemanni* (Sam E. I. Jones)

Figure 13. Ethiopian Bush-crow *Zavattariornis stresemanni* showing a single leucistic fourth primary; note the 'fork-tailed' appearance caused by rectrix moult, with the central pair dropped (see Fig. 14) (Sam E. I. Jones)

Corbin de Stresemann *Zavattariornis stresemanni* avec une quatrième rémige leucistique ; noter l'apparence fourchue de la queue due à la mue de la paire centrale des rectrices (voir Fig. 14) (Sam E. I. Jones)

feathers serve to allow better heat dissipation for effective thermoregulation, in addition to the use of the exposable flange on the side of the head (Töpfer & Gedeon 2014).

Plumage aberrations have not been reported in the species previously, but once SEIJ observed a bird with a single leucistic primary (Fig. 13).

Moult

A high proportion of trapped birds (80%) were synchronously moulting and tending nests. Many of these were in an advanced stage of wing moult, indicating they had started their moult early in the breeding cycle. Moulting and breeding simultaneously is uncommon in birds, but has been reported in similar arid-zone species such as Pale-winged Starling *Onychognathus nabouroup* (Craig 2012) and Southern Pied Babbler *Turdoides bicolor* (A. Ridley pers. comm.), of which the latter also breeds co-operatively. Such synchrony may be driven by physiological stressors, such as high temperatures, which, if greater during the non-breeding season, necessitate moulting during the breeding season.

Remex moult patterns are centrifugal as to be expected in most passerines, beginning with the greater coverts and moving from the first primary outwards, with secondary moult probably starting simultaneously with pp4–6. A lack of apparent pattern, however, was observed in rectrix moult in a large proportion of trapped birds, where in some circumstances up to three generations of feathers were present (Fig. 14). The explanation is unclear, but this is the likely cause of regular observations of bush-crows displaying a fork-tailed appearance in flight (Fig. 13). Rectrix moult was observed to be more uniform in some birds, however, commencing with the central pair.

Figure 14. Peculiar rectrix moult present in many Ethiopian Bush-crows *Zavattariornis stresemanni* captured in 2013, showing heavy wear and three separate generations of rectrices (Sam E. I. Jones)

Mue particulière des rectrices observée chez beaucoup de Corbins de Stresemann *Zavattariornis stresemanni* capturés en 2013, révélant une usure élevée et trois générations de rectrices (Sam E. I. Jones)

Figure 15. Solitary Ethiopian Bush-crow *Zavattariornis stresemanni* taking flight with a group of Red-billed Buffalo Weavers *Bubalornis niger* (Paul F. Donald)

Corbin de Stresemann *Zavattariornis stresemanni* solitaire s'envolant avec un groupe d'Alectos à bec rouge *Bubalornis niger* (Paul F. Donald)

The extent of post-juvenile moult is unknown, although both trapped individuals thought to be young from the previous season showed no moult limits or feather attributes normally associated with young birds (e.g. pointed tips to primary-coverts or rectrices). Considering the controlled and protected nest environment of the bush-crow (Benson 1942, Töpfer & Gedeon 2012), juveniles may be able to take more time to grow better-quality feathers than other passerines, which they then retain for a protracted period before moulting into subsequent plumage. While uncommon in a passerine, this strategy would offer more effective thermoregulatory ability under high temperatures that appear to restrict their behaviour (Jones 2013), and would reduce metabolic stress in already physiologically challenging conditions.

Group dynamics

Breeding groups

Bush-crows breed co-operatively and several helpers tend active nests, although their specific roles and fidelity to nests are unknown. Benson (1942) noted that it was usual for three birds to tend a nest, but that there was no evidence for more than one female laying. Donald *et al.* (2012) observed three nest helpers (additional to the breeding pair) at each of four nests, while observations by Gedeon (2006) suggest that helpers may tend several nests simultaneously. However, PFD has observed a group where helpers visited several crudely constructed nests in between visiting one that was clearly active, so an alternative explanation is that helpers build 'practice' nests while tending 'real' ones. The same apparent 'nest infidelity' was observed on a couple of occasions by AJB & SEIJ in 2013 while following colour-marked birds.

While undertaking behavioural observations on post-fledging groups (frequently containing colour-marked birds) in 2013 and 2014, SEIJ & AJB observed at least 24 groups across eight sites for protracted periods. Modal group size was 9–10 birds, comprising 2–6 adults (all appearing to possess some role in post-natal care) and 1–5 juveniles. The ratio of adults to juveniles in each group varied from 6:1 to 3:4, although roughly equal proportions were most common. The high adult to juvenile ratio serves to highlight the attentive post-natal care given to young birds by the group. The two smallest groups contained two adults and one juvenile. However, at least one of these groups was almost certainly not the product of bi-parental care, as one of the adults had been caught and colour-marked attending a nest amongst a larger group. It is therefore possible that these observations pertain to birds defecting, or being expelled, from their original social group.

As noted by Gedeon (2006), these groups occasionally form larger flocks, or separate into sub-units while foraging, but the number of parent and tending birds appears stable within a group across multiple visits. While observing a nest in Dida Hara, KG observed a parent pair and two stable helpers, who were occasionally joined by a third individual. However, the latter was not well received by the parents, who even tried to prevent it from approaching the nest, perhaps indicating that genetic or social bonds may play a role in acceptance of helpers. Bush-crows are often observed playing with sticks, and the arrival of a bird at a nest with a stick is greeted by a cacophony of calling (Gedeon 2006; pers. obs.), suggesting that nest construction may be important in affirming group structure.

Non-breeding groups

During behavioural observations, SEIJ & AJB noted several small parties of up to eight adults (mode = 4–5) without chicks, with two observations of a lone adult. In 2013, many such groups included colour-marked individuals that had been trapped while attending nests, indicating that some helper birds may leave the group after the young fledge.

Post-breeding ranging behaviour

Active nests were identified at the time of ringing in 2013 by observing the birds' regular flight paths and nest visits. The dispersal area from the nest for up to five weeks after fledging was measured by SEIJ for four colour-marked groups, followed on at least three separate days over at least a two-week period (Table 2).

These preliminary results indicate that at least some groups possess a high fidelity to the natal area. However, many groups with ringed birds were not relocated, particularly at the edge of the range near Dadim, where 18 birds were ringed but only two seen again during five days of searching. This is in keeping with reports made to KG, AJB & SEIJ by local people, in particular at the edges

Table 2. Summary of group sizes, observation coverage and dispersal area for four post-fledging Ethiopian Bush-crow *Zavattariornis stresemanni* groups followed in 2013 by SEIJ.

Tableau 2. Taille, fréquences des observations et aire de dispersion de quatre groupes de Corbins de Stresemann *Zavattariornis stresemanni* après l'envol des jeunes, suivis en 2013 par SEIJ.

Site	Group size (adult : juvenile)	Observation coverage	Total ranging area
Dida Hara	9 (4:5)	16 hours 29 minutes 5 days over 3 weeks	41.0 ha
Dida Tuyura	10 (5:5)	12 hours 33 minutes 4 days over 2 weeks	37.3 ha
Soda Plain	7 (4:3)	8 hours 40 minutes 3 days over 2 weeks	107.4 ha
Soda Plain	8 (4:4)	5 hours 43 minutes 3 days over 2 weeks	60.8 ha

of the species' range, that birds are present in some seasons and absent in others, suggesting a degree of seasonal movement, as previously mentioned by other authors (Collar & Stuart 1985, Dellelegn 1993, Redman *et al.* 2009).

Visits to the region since the 2013 ringing season have provided further evidence for site fidelity. In April–May 2013 57 birds were ringed at four sites: Dida Hara (n = 17), Dida Tuyura (n = 6), between Soda Plain and Madacho (n = 16), and Dadim (n = 18). In October 2013 PFD, NJC & MW found nine ringed birds at Dida Hara and six on Soda Plain: of the latter, three could be individually identified, and all were within 1.5 km of where they had been caught. In April–June 2014, AJB observed nine ringed birds, at Dadim (n = 1), Dida Hara (n = 2), Dida Tuyura (n = 3) and Soda Plain (n = 3), all of which were within 2 km of where they were ringed in 2013. These observations were made during opportunistic rather than systematic searching, and overall more time was spent in areas where birds had been caught, meaning that any dispersers would be less likely to be detected. Nonetheless, the sightings provide evidence that some birds are strongly site faithful.

A single observation suggests that bush-crows may, occasionally, move around with other species. On 26 October 2013, PFD observed a singleton associating closely with a flock of Red-billed Buffalo Weavers *Bubalornis niger* (Fig. 15). When the flock was disturbed (presumably by an unseen raptor) and flew off far and high, the bush-crow accompanied them, despite the presence of a party of foraging bush-crows in the vicinity.

Interspecific interactions and behaviours

Predation

Gedeon (2006) reported observations of interspecific relations with potential predators, but to date known predators are few, although reports exist of a Tawny Eagle *Aquila rapax* opening the top of a nest (Collar & Stuart 1985) and an Eastern (Pale) Chanting Goshawk *Melierax poliopterus* successfully plundering a nest (Töpfer & Gedeon 2012). SEIJ observed a pair of Abyssinian Ground Hornbills *Bucorvus abyssinicus* apparently attempting to raid a bush-crow nest in May 2013, although this was some time after the young had fledged.

Predation of a bush-crow was observed for the first time by SEIJ on 3 June 2013. Widespread alarm behaviour by a post-fledging bush-crow group was elicited on detection of an Eastern Chanting Goshawk, but the raptor managed to take a juvenile. On capture, the juvenile uttered a repeated distress call, attracting mass mobbing of the goshawk by other group members. This distress call was previously unknown, but first heard (and recorded) during the handling of birds in mist-nets (www.xeno-canto.org/140117).

Birds trapped in nets exhibited intriguing responses. Most initially gave the distress call described above, although some varied in their alarms, while a few remained relatively quiet. The distress call served quickly to attract other members of the group, many of which also were caught in the nets. After a short time, however, the remaining birds appeared to assess the situation and would skilfully fly around or over the net, sometimes perching on it, and occasionally mobbing SEIJ & AJB as they extracted trapped birds (Fig. 16). The distress calls acted as a stimulus to other species, commonly resulting in multiple-species captures, as was also the case from distress calls of other taxa.

Gedeon (2006) noted the confiding nature of bush-crows, which do not scare easily at the sight of people. However, SEIJ & AJB found that, while some groups are easy to approach to within 5 m, and will confidently forage around the feet of an observer, others are very wary, making approach closer than *c.*30–40 m difficult, with one or more birds alarming and causing the group to fly off. Both response extremes were exhibited by colour-marked birds, so this

Figure 16. An Ethiopian Bush-crow *Zavattariornis stresemanni*, perched on the mist-net, investigates how to free its companion from the net (Sam E. I. Jones)

Un Corbin de Stresemann *Zavattariornis stresemanni*, perché sur le filet japonnais, examine comment libérer son compagnon (Sam E. I. Jones)

does not seem to be an artefact of handling; nor did the presence of juveniles in groups appear related to degree of wariness. Possibly it simply reflects individual 'personalities', with wary birds producing wary behaviour in their groups, but our overall impression was that groups that nest close to villages were much more habituated to people.

Antagonistic behaviour

We have observed bush-crows readily joining other species (most frequently Superb *Lamprotornis superbus* and White-crowned Starlings *Spreo albicapillus* and Red-billed Buffalo Weavers) in mobbing snakes, including Puff Adders *Bitis arietans* on multiple occasions and a single cobra *Naja* sp. In 2013 SEIJ observed a bush-crow group harrying a domestic dog, and we have watched groups initiate the mobbing of Grey Kestrel *Falco ardosiaceus*, Gabar Goshawk *Micronisus gabar*, Tawny Eagle and Pearl-spotted Owlet *Glaucidium perlatum* in 2013 (SEIJ), and a perched Verreaux's Eagle Owl *Bubo lacteus* in 2014 (AJB); on the last occasion they were joined by single White-crowned and Superb Starlings. Despite this we found that bush-crows did not respond to artificial snakes or owls, which we attempted to use as lures to nets.

Bush-crows have also been observed to respond to benign species. In 2013 SEIJ observed groups mobbing innocuous targets such as a Cape Hare *Lepus capensis*, while KG has observed bush-crows taking an interest in large tortoises, hopping around them and even perching on their carapaces.

Nest proximity to other species

Bush-crows sometimes nest close to other species. In 2013 they were found nesting in the same tree as White-crowned Starlings on four occasions and among Red-billed Buffalo Weaver colonies on two, and once a single bush-crow nest was in the same tree as a Black-capped Social Weaver *Pseudonigrita cabanisi* colony (AJB). This would seem beneficial if the birds utilise one another's alarm calls for protection.

Other species sometimes use bush-crow nests. On 22 April 2013 SEIJ observed a pair of Shelley's Rufous Sparrows *Passer shelleyi* apparently tending an active nest in the base of an active bush-crow nest. On separate occasions in 2013, AJB witnessed a Superb Starling and a White-crowned Starling perched at the entrances of old bush-crow nests, and KG has observed both these species feeding their young inside old bush-crow nests.

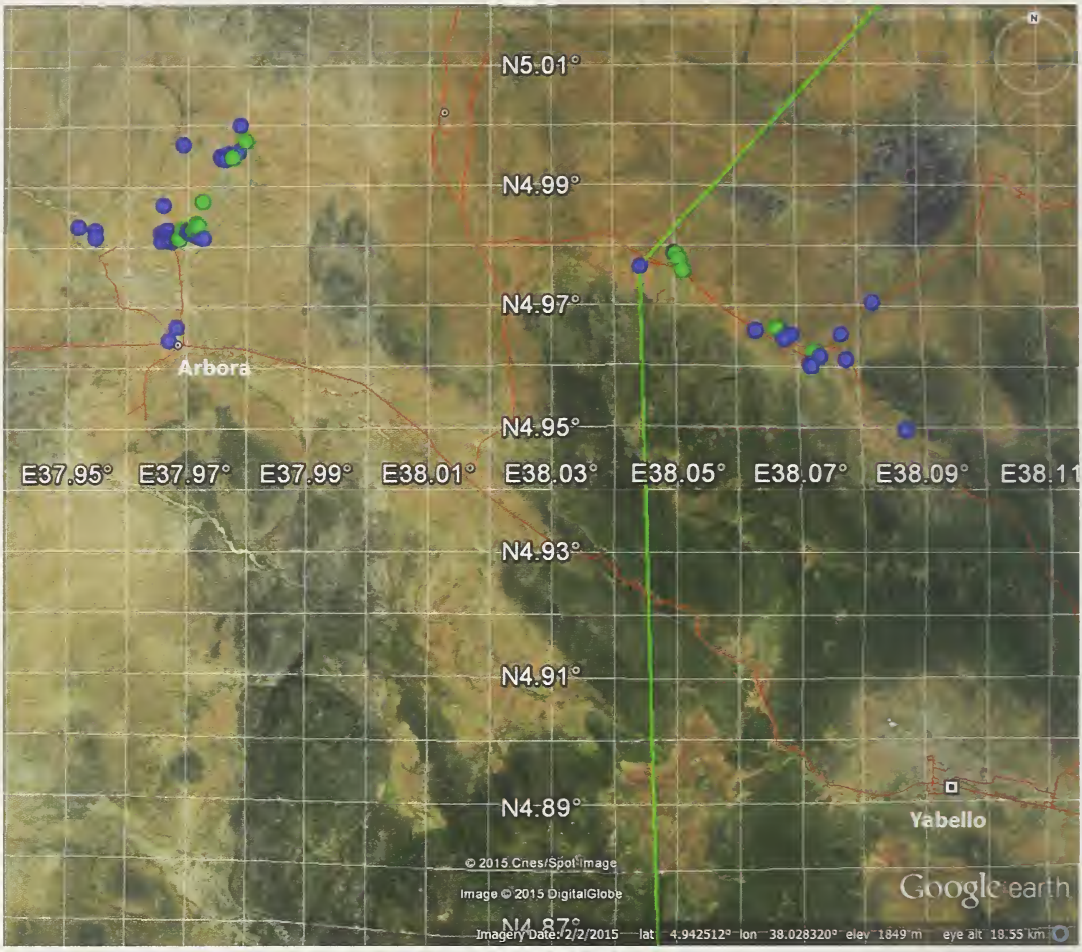


Figure 17. Locations of Ethiopian Bush-crows *Zavattariornis stresemanni* (blue dots) and their nests (green dots) found near Arbora in 2014 (western cluster). The eastern cluster contains records from 2014 and previous years, the green line represents the previous range limit (Donald *et al.* 2012) and red lines represent roads. Source: GoogleEarth 04.942512°N 38.028320°E. © 2015 Cnes/Spot Image. Image © 2015 DigitalGlobe. Imagery date: 2 February 2015 (accessed 21 September 2015).

Positions des Corbins de Stresemann *Zavattariornis stresemanni* (points bleus) et de leurs nids (points verts) trouvés près de Arbora en 2014 (groupement occidental). Le groupement oriental comprend des observations de 2014 et des années précédentes, la ligne verte représentant la limite précédente de l'aire de répartition (Donald *et al.* 2012) et les lignes rouges des routes. Source: GoogleEarth 04.942512°N 38.028320°E. © 2015 Cnes/Spot Image. Image © 2015 DigitalGlobe. Date de l'imagerie : 2 février 2015 (consulté le 21 septembre 2015).

Kleptoparasite avoidance

Gedeon (2006) briefly reported a bush-crow's avoidance of kleptoparasitism by a Northern Red-billed Hornbill *Tockus erythrorhynchus*. The bush-crow was digging at the ground with its bill to extract food. The hornbill approached and waited next to the bush-crow, seemingly ready to steal the prey. The bush-crow ceased digging and flew a few metres away where it 'pretended' to forage. When the hornbill followed, the bush-crow quickly flew back to the first point, took the prey from the exact spot where it had previously dug, and flew away, apparently having deceived the hornbill.

Range boundary changes

The global range of the Ethiopian Bush-crow is relatively easily defined, owing to the abundance and conspicuous nature of nests in the tops of trees (Donald *et al.* 2012). A range of hills with

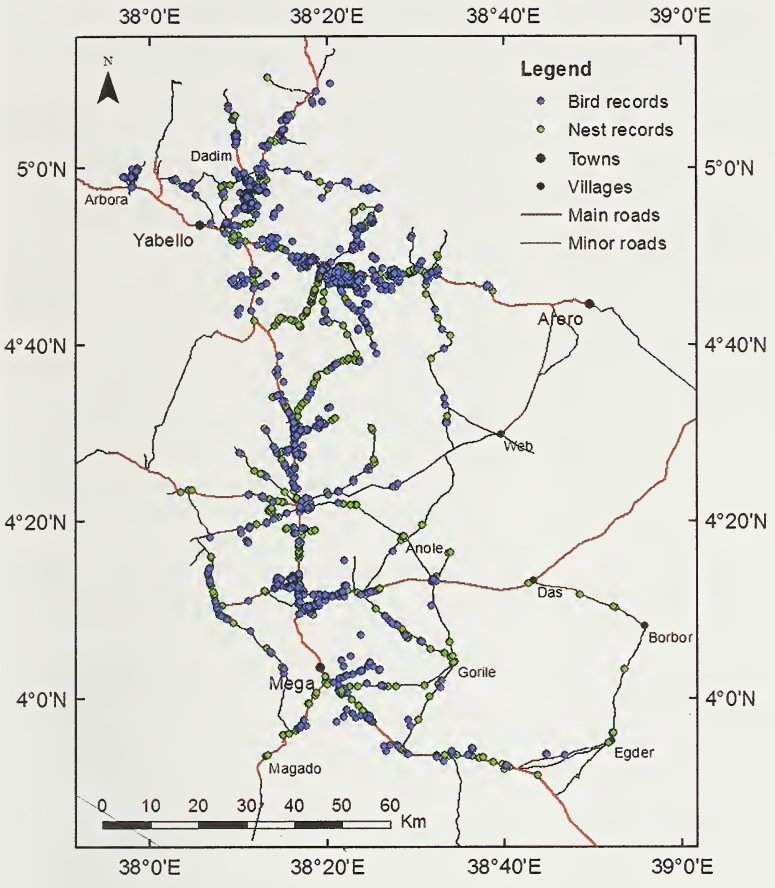


Figure 18. All Ethiopian Bush-crow *Zavattariornis stresemanni* records 2005–14, showing areas on the edge of the range where nests have been found, but birds have never been recorded.

Toutes les observations du Corbin de Stresemann *Zavattariornis stresemanni* de 2005–14, montrant les zones à la limite de l'aire de distribution où des nids ont été trouvés (points verts), mais où les oiseaux n'ont jamais été observés.

unsuitable habitat was believed to define the limit of the species west of Yabello, despite a stretch of seemingly suitable habitat along the Yabello–Consu road immediately west of the hills and a single record from the area in 1983 (Collar & Stuart 1985). Benson (1946) reported that bush-crows were absent west of Yabello, and since 2005 we have often driven this road and never encountered the species or its nests. However, on 11 April 2014, AJB was taken along this road to an area of woodland north of the village of Arbora, 16 km north-west of Yabello. Here A. Huka, a local scout, had discovered bush-crows three weeks earlier. Thirty minutes of searching yielded three nests and at least two groups of birds. AJB returned to the area on four more occasions until the end of June, finding further nests and groups. Curiously the central area, which contained most of the nests, held birds on the earlier visits but not on later ones, when searching further afield led to the discovery of groups elsewhere including right next to the main road at Arbora itself (Fig. 17). Birds have remained in the area since then (last seen on 13 April 2015; S. Busuttil pers. comm.) and on 18 July 2014 a group was seen 5 km south of Arbora (J. Denge pers. comm.) but A. Huka, who has worked at Arbora for four years, had never seen bush-crows there before.

There are other areas at the edge of the range where we have found bush-crow nests but have never seen any birds (Fig. 18, e.g. the Das–Egder road in the south-east). This suggests that there may be some fluctuation at the edges of the range, which is of particular interest given the species' close-fitting climate envelope (Donald *et al.* 2012). If the birds are indeed limited by some temperature-driven stressor, range expansions perhaps occur in cooler years when the birds are able to survive further from their core range, and this is when nests are built in places such as Arbora and Borbor. In hotter years the birds retreat from these areas, leaving their robust nests, which

evidently survive a number of years, as indications of their former presence. Our observations of the disappearance of large numbers of bush-crows post-breeding from the edge of the range offer further anecdotal support for this hypothesis.

Call for observations

Ethiopian Bush-crow is a fascinating and rewarding study species, and whilst our observations revealed a suite of new behaviours, a great deal more remains to be learned. We would be interested to hear from anyone visiting the region who observes other undescribed behaviours, and in particular to receive photographs, together with a date and rough coordinates, of any colour-marked birds, to aid our understanding of survival rates and dispersal behaviour.

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[a] *Department of Zoology, Downing Street, Cambridge CB2 3EJ, UK. E-mail: andrew.bladon@cantab.net (*author for correspondence) and reg29@cam.ac.uk*

[b] *Department of Life Sciences, Imperial College London, Silwood Park, Ascot, Surrey SL5 7PY, UK. E-mail: samuel.ei.jones@gmail.com*

[c] *BirdLife International, The David Attenborough Building, Pembroke Street, Cambridge CB2 3QZ,UK. E-mail: nigel.collar@birdlife.org*

[d] *Ethiopian Wildlife and Natural History Society, PO Box 13303, Addis Ababa, Ethiopia. E-mail: ydabebe@ewnhs.org.et and m.wondafrash@ewnhs.org.et*

[e] *RSPB Centre for Conservation Science, RSPB, The Lodge, Sandy, Beds SG19 2DL, UK. E-mail: paul.donald@rspb.org.uk*

[f] *Saxon Ornithologists' Society, PO Box 1129, 09331 Hohenstein-Ernstthal, Germany. E-mail: k.gedeon@gmail.com*

[g] *Percy FitzPatrick Institute, University of Cape Town, Rondebosch 7701, South Africa. E-mail: cns26@cam.ac.uk*

[h] *Zoologisches Forschungsmuseum Alexander Koenig, Adenauerallee 160, 53113 Bonn, Germany. E-mail: t.toepfer@zfmk.de*

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First records of Red-necked Buzzard *Buteo auguralis* for southern Africa, with notes on identification of *Buteo* buzzards in the subregion

R. Buij[a], W. S. Clark[b] and D. G. Allan[c]

Premières mentions de la Buse d'Afrique *Buteo auguralis* pour l'Afrique australe, avec des notes sur l'identification de buses *Buteo* dans la sous-region. Les six premières mentions de la Buse d'Afrique *Buteo auguralis* pour l'Afrique australe sont présentées. Trois observations ont été faites en Namibie, deux au Botswana, et la sixième en Afrique du Sud ; toutes étaient dans le grand bassin du Kalahari. Quatre observations concernaient des juvéniles et ont eu lieu dans la seconde moitié de la période sèche de l'hiver austral (juillet–août). Les deux autres concernaient des adultes ou subadultes et ont été effectuées dans la seconde moitié de la saison des pluies de l'été austral (janvier–mars). Les oiseaux ont été observés en cinq années différentes (2001, 2009, 2011, 2014 et 2015), suggérant un vagabondage régulier des populations nichant plus au nord. Nous présentons les caractères de plumage qui faciliteront la séparation de juveniles de la Buse d'Afrique d'autres buses en Afrique australe (Buse forestière *B. trizonatus*, Buse des steppes *B. buteo vulpinus*, Buse augure *B. augur* et Buse rounoir *B. rufofuscus*).

Summary. We present the first six records of Red-necked Buzzards *Buteo auguralis* for southern Africa: three from Namibia, two from Botswana and one from South Africa, and all are from the greater Kalahari Basin. Four records were of juveniles and occurred during the mid- to late austral winter dry period (July–August). The other two records were adults or near-adults and occurred during the mid- to late austral summer wet season (January–March). Birds were seen in five different years (2001, 2009, 2011, 2014, 2015), suggesting regular vagrancy from breeding populations further north. We present plumage characters that will facilitate future separation of juvenile Red-necked Buzzards from Forest *B. trizonatus*, Steppe *B. buteo vulpinus*, Augur *B. augur* and Jackal Buzzards *B. rufofuscus* in southern Africa.

Many *Buteo* species are very similar in general appearance to one another. In addition, intra-specific variation in plumage colours and patterns within most, if not all, *Buteo* species are notoriously bewildering and are occasionally so marked as to carry the labels of discrete 'morphs'. This variability is further compounded by typically subtle but distinct differences in plumages and other features (e.g. eye colour) in juveniles. It is little wonder that *Buteo* buzzards frequently present serious field identification challenges, although morphometric and plumage characters generally prove useful to discriminate taxa (e.g. Ferguson-Lees & Christie 2001, Clark 2007).

The following seven *Buteo* taxa regularly occur on the African mainland: Long-legged *Buteo rufinus*, Red-necked *B. auguralis*, Forest *B. trizonatus*, Mountain *B. oreophilus*, Common *B. buteo*, Augur *B. augur* and Jackal Buzzards *B. rufofuscus* (Kruckenhauser *et al.* 2004, Clark 2007). The race *vulpinus* of Common Buzzard, 'Steppe Buzzard', is the most widespread taxon of this species in Africa, where it is a non-breeding Palearctic migrant. The taxon *vulpinus* has been considered worthy of elevation to specific status (e.g. Hockey *et al.* 2005) but is treated as a subspecies here following Dickinson & Remsen (2013). Augur and Jackal Buzzards, and Mountain and Forest Buzzards, have been considered conspecific (e.g. Brown *et al.* 1982) but are now widely accepted as separate species (e.g. Dickinson & Remsen 2013).

Four *Buteo* species, Forest, Steppe, Augur and Jackal Buzzards, occur commonly in southern Africa, defined here as the geographic subregion south of the Zambezi and Cunene rivers, and including Botswana, Lesotho, Namibia, Zimbabwe, South Africa, Swaziland and southern Mozambique (Hockey *et al.* 2005). Long-legged Buzzard has been claimed as a rare vagrant to southern Africa, but its presence remains controversial and requires confirmation (Dowsett & Kemp 1988, Hockey *et al.* 2005). All of the many photographs of alleged Long-legged Buzzards from the subregion were judged to be juvenile Jackal Buzzards (WSC pers. obs.).

Forest Buzzard is endemic to southern Africa and is a partial migrant found in temperate coastal

forests and clearings of South Africa, moving north as far as the Drakensberg escarpment during the non-breeding season. Steppe Buzzard is a common Palearctic non-breeding visitor to southern Africa, with some occasionally remaining in South Africa during the southern winter. Confusion exists concerning the status of those buzzards observed year-round on the Cape Peninsula, some matching the description of Steppe Buzzard, others displaying intermediate characters between Steppe and Forest Buzzard (Clark 2009a). Augur Buzzard is sedentary in northern parts of southern Africa. It occurs fairly widely in Zimbabwe, Namibia and parts of Mozambique, and has been claimed from extreme north-east South Africa (e.g. Kemp 1974). There are five previously confirmed records for Botswana (P. Hancock *in litt.* 2015), while Fig. 16 presented here documents a sixth. Jackal Buzzard is endemic to southern Africa, occurring largely to the south of the range of Augur Buzzard and is generally sedentary, although juveniles are dispersive over wide areas, frequenting a greater variety of habitats, from lowlands to (mainly) hills.

No published records of Red-necked Buzzard exist for southern Africa. This intra-African or partial migrant of West and Central Africa occurs from the Sahel south to the equatorial forest zone and north-west Angola, the southernmost part of the distribution range, where populations are apparently rather sedentary (Ferguson-Lees & Christie 2001). This paper presents details of the first six records of Red-necked Buzzard for southern Africa, including one previously identified as a Forest Buzzard. We commence by discussing the key identification features under most field conditions differentiating juveniles of Red-necked Buzzard from the four common *Buteo* species occurring in southern Africa, particularly as relevant to these six records, all of which are supported by photographic evidence. We focus primarily on juveniles, as the key identification problems are typically associated with this age group.

Separation of juvenile *Buteo* buzzards in southern Africa

All juvenile buzzards have brown upperparts edged rufous-buff, variably marked whitish to creamy or rufous underparts, and brown tails with narrow dark bands. They also have yellow ceres, yellowish, greyish-brown to (pale) brown eyes, and yellow legs. Eye colour of adults is dark brown in all five buzzard species covered here.

Red-necked Buzzard *Buteo auguralis*

Similar in size and shape to Forest and Steppe Buzzards. It is noticeably slighter and longer tailed in appearance than Augur and Jackal Buzzards, although to some extent it shares the broad-winged appearance of those two species in flight. The head and nape are variably tinged rufous in both adults

Figure 1. Juvenile Red-necked Buzzard *Buteo auguralis*, Cameroon, June 2009 (Ralph Buij). The pale eye, white throat and upper chest, and buff edges to the upperpart feathers are all indicative of a juvenile, while the rufous cast to the head and neck, uniformly dark secondaries, streaking restricted to flanks and belly, and lack of narrow pale supercilium and dark stripe behind the eye are all useful identification features.

Buse d'Afrique *Buteo auguralis* juvénile, Cameroun, juin 2009 (Ralph Buij). L'œil pâle, la gorge et le haut de la poitrine blanche, et les lisérés chamois des plumes des parties supérieures indiquent qu'il s'agit d'un juvénile, tandis que la coloration roussâtre de la tête et du cou, les rémiges secondaires uniformément sombres, les stries confinées aux flancs et au ventre, et l'absence d'un étroit sourcil pâle et d'un trait foncé derrière l'œil sont des caractères complémentaires utiles à l'identification.

Figure 2. Juvenile Red-necked Buzzard *Buteo auguralis*, Cameroon, August 2008 (Ralph Buij). The dark carpal arcs stand out, median coverts are pale (shared with Forest Buzzard *B. trizonatus*), greater coverts form a darker line, and note rufous cast to tail, lower chest and unmarked leg feathers.

Buse d'Afrique *Buteo auguralis* juvénile, Cameroun, août 2008 (Ralph Buij). Les virgules carpales sombres tranchent sur le fond clair, les couvertures sous-alaires moyennes sont pâles (comme chez la Buse forestière *B. trizonatus*), les grandes couvertures forment une ligne sombre, et la queue, et le bas de la poitrine et la culotte unie sont teintés de roux.

Figure 3. Juvenile Red-necked Buzzard *Buteo auguralis*, Cameroon, August 2007 (Ralph Buij). Note blotches on breast-sides and flanks, drop-like streaks on underparts, which are more whitish than buff, plus dark carpal arcs, dark markings restricted to lesser and greater coverts, and indistinctly barred flight feathers.

Buse d'Afrique *Buteo auguralis* juvénile, Cameroun, août 2007 (Ralph Buij). Noter les taches sur les cotés, les stries en forme de gouttes sur les parties inférieures, qui sont blanchâtres plutôt que chamois, ainsi que les virgules carpales sombres, les marques sombres confinées aux petites et grandes couvertures sous-alaires, et les rémiges faiblement barrées.

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Figure 4. Juvenile Red-necked Buzzard *Buteo auguralis*, Cameroon, August 2008 (Ralph Buij). Note dark carpal arcs, unmarked median coverts and dark line formed by greater coverts.

Buse d'Afrique *Buteo auguralis* juvénile, Cameroun, août 2008 (Ralph Buij). Noter les virgules carpales sombres, les couvertures sous-alaires moyennes unies et la ligne sombre sur les grandes couvertures.

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Figure 5. Juvenile Red-necked Buzzard *Buteo auguralis*, Cameroon, June 2010 (Ralph Buij). A rather heavily marked individual, with pale band formed by unmarked median coverts, narrow dark band on greater coverts, and rufous cast to head and tail.

Buse d'Afrique *Buteo auguralis* juvénile, Cameroun, juin 2010 (Ralph Buij). Un individu assez bien marqué, avec les couvertures sous-alaires moyennes unies formant une bande claire, la bande sombre sur les grandes couvertures, et la tête et la queue teintées de roux.

and juveniles. Red-necked Buzzards inhabit forest edge, woodland (including plantations), savanna and farmland.

The head and nape of juveniles are rather uniformly brown with a rufous cast, lacking a strong pale supercilium and dark stripe behind the eye (Figs. 1–6). The brown upperpart feathers are edged rufous-buff. Thighs, vent and undertail-coverts are unmarked, unlike in most juvenile Forest Buzzards, while the underparts from throat to belly have a variable number of blotches and drop-like streaks. A patch of dark markings on the lower chest is evident in most. The tail has narrow, evenly spaced, darker brown bars throughout and the uppertail is rufous or shows a variable rufous cast (its visibility on the undertail depends on light conditions), often more clearly so than in juvenile Forest Buzzard. The darker secondaries above contrast with a paler primary window. In flight from below, the cream to pale buff underwings are variably marked (sometimes entirely unmarked) but always show a strongly contrasting well-defined dark carpal arc. The median underwing-coverts often lack dark markings, forming a pale band contrasting with a dark line of dark-tipped greater coverts and variably streaked lesser coverts (features shared with Forest Buzzard). Indistinct banding on the underside of the flight feathers is more typical of juvenile Red-necked Buzzard than other juvenile buzzards. Worn juvenile Red-necked Buzzards lose the buff edges to the upperparts and become whiter and less heavily marked below, and moult directly into adult plumage.

Figure 6. Juvenile Red-necked Buzzard *Buteo auguralis*, Cameroon, July 2009 (Ralph Buij). Typical juvenile with rufous tail and a pale primary window.

Buse d'Afrique *Buteo auguralis* juvénile, Cameroun, juillet 2009 (Ralph Buij). Juvénile typique avec la queue rousse et la fenêtre pâle sur les rémiges primaires.

Forest Buzzard *Buteo trizonatus*

Inhabits Afromontane forests and associated alien plantations of eastern and southern South Africa. Adults and juveniles are fairly similar in appearance and both are brown above. This species can show some barring on the underparts, but never as much as the typical adult, but not juvenile, Steppe Buzzard.

Figure 7. Juvenile Forest Buzzard *Buteo trizonatus*, South Africa, September 2013 (Crystelle Wilson). Note the narrow pale supercilium, bold dark stripe behind the eye, lack of rufous tinge to the head and pale band across lower chest, with brown markings above and below.

Buse forestière *Buteo trizonatus* juvénile, Afrique du Sud, septembre 2013 (Crystelle Wilson). Noter l'étroit sourcil pâle, le trait foncé derrière l'œil, l'absence de teinte rousse sur la tête et la bande claire sur le bas de la poitrine, entourée de brun.

Figure 8. Juvenile Forest Buzzard *Buteo trizonatus*, South Africa, August 2001 (Bill Clark). The dark carpal arc is less well defined compared to Red-necked Buzzard *B. auguralis*, and the lightly streaked lesser coverts of this pale individual are similar to juvenile Red-necked Buzzard; however, the dark band across the posterior underparts with the contrasting white band above is typical of Forest Buzzard.

Buse forestière *Buteo trizonatus* juvénile, Afrique du Sud, août 2001 (Bill Clark). Les virgules carpales sombres sont moins bien définies que chez la Buse d'Afrique *B. auguralis*, les petites couvertures faiblement striées de cet individu pâle ressemblent à celles de la Buse d'Afrique juvénile, mais la bande sombre sur le bas des parties inférieures contrastant avec la bande blanche au dessus sont caractéristiques de la Buse forestière.

Figure 9. Juvenile Forest Buzzard *Buteo trizonatus*, South Africa, September 1998 (Bill Clark). The dark carpal arc and lightly streaked lesser coverts are similar to many juvenile Red-necked Buzzards *B. auguralis*, while the barring on the secondaries is more distinct than in the latter. Note also the narrow pale supercilium, the bold dark stripe behind the eye and the lack of rufous tinge to the head.

Buse forestière *Buteo trizonatus* juvénile, Afrique du Sud, septembre 1998 (Bill Clark). La virgule carpale sombre et les petites couvertures faiblement striées ressemblent à beaucoup de Buses d'Afrique *B. auguralis* juvéniles, mais les barres sur les rémiges secondaires sont plus marquées que chez ces dernières. Noter aussi l'étroit sourcil pâle, le trait foncé derrière l'œil et l'absence de teinte rousse sur la tête.

Figure 10. Juvenile Forest Buzzard *Buteo trizonatus*, South Africa, August 2001 (Bill Clark). Note the pale primaries contrasting with the dark unmarked secondaries, the lack of rufous coloration, the narrow pale supercilium and the bold dark stripe behind the eye.

Buse forestière *Buteo trizonatus* juvénile, Afrique du Sud, août 2001 (Bill Clark). Noter les rémiges primaires pâles contrastant avec les secondaires foncées unies, l'absence de coloration rousse, l'étroit sourcil pâle et le trait foncé derrière l'œil.

The brown head of juveniles shows a narrow pale supercilium and a bold dark stripe behind the eye (Figs. 7–10). The juvenile is often less heavily marked on the underparts, including the underwing-coverts, than the adult but still has drop-shaped streaks on the breast, flanks and usually, but not always, thighs. These markings often form a pale band across the lower breast, not seen on juvenile Red-necked Buzzards, which typically show the opposite, i.e. a dark band of markings across the lower breast. The shape of the underparts markings are more in the form of streaks rather than blotches. The tail is evenly barred throughout and lacks the broader subterminal band of the adult. The underwings are pale and variably marked, with a dark carpal arc and lightly to densely streaked lesser coverts; the carpal arc is less well defined than in juvenile Red-necked Buzzard and the underwing is rarely as unmarked as in some Red-necked. The median underwing-coverts often lack dark markings, forming a pale band contrasting with a dark line of dark-tipped greater coverts and variably streaked lesser coverts. The secondaries are narrowly banded below, but appear uniformly dark above.

Steppe Buzzard *Buteo buteo vulpinus*

The most widespread of the four buzzard species commonly found in southern Africa. It occurs in a wide range of habitats from the interior of forests and plantations to open grassland, but is least common in the most arid parts of the subregion. Both adults and juveniles are

Figure 11. A very pale, worn juvenile Steppe Buzzard *Buteo buteo vulpinus*, South Africa, January 2014 (Crystelle Wilson). Note more attenuated shape, lack of obvious narrow pale supercilium and bold dark stripe behind the eye, and narrower underpart markings compared to Forest Buzzard *B. trizonatus*; like Forest Buzzard, but unlike Red-necked Buzzard *B. auguralis*, it lacks a rufous tinge to the head and the thighs are marked.

Buse des steppes *Buteo buteo vulpinus* juvénile au plumage très pâle et usé, Afrique du Sud, janvier 2014 (Crystelle Wilson). Noter la silhouette plus élancée, l'absence d'un étroit sourcil pâle et d'un trait foncé derrière l'œil, et les stries sur les parties inférieures plus étroites que chez la Buse forestière *B. trizonatus* ; comme chez la Buse forestière, mais contrairement à la Buse d'Afrique *B. auguralis*, la tête n'est pas teintée de roux et les cuisses sont tachetées.

Figure 12. Pale juvenile Steppe Buzzard *Buteo buteo vulpinus*, South Africa, December 2009 (David Allan). Note relatively long- and narrow-winged appearance, indistinct carpal patch, broad dark band on trailing edges to wings, and dark leg feathers.

Buse des steppes *Buteo buteo vulpinus* juvénile pâle, Afrique du Sud, décembre 2009 (David Allan). Noter les ailes relativement longues et étroites, les taches carpales indistinctes, le large bord postérieur sombre aux ailes, et les plumes des pattes sombres.

Figure 13. Pale juvenile Steppe Buzzard *Buteo buteo vulpinus*, Israel, April 1988 (Bill Clark). Note indistinct carpal patch and broad dark band on trailing edge to wing.

Buse des steppes *Buteo buteo vulpinus* juvénile pâle, Israël, avril 1988 (Bill Clark). Noter la tache carpale indistincte et le large bord de fuite sombre.


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Figure 14. Juvenile Steppe Buzzard *Buteo buteo vulpinus*, Israel, March 2009 (Bill Clark). A pale brown individual lacking rufous coloration, and note slender build, pale primaries and darker secondaries.

Buse des steppes *Buteo buteo vulpinus* juvénile, Israël, mars 2009 (Bill Clark). Un individu brun pâle sans coloration rousse ; noter la stature élancée, les rémiges primaires pâles et les secondaires plus sombres.

brown above and look fairly similar. The brown plumage throughout typically has a rufous tinge, a characteristic of race *vulpinus*, although some individuals are more plain dark brown. Some adult and juvenile Steppe Buzzards are somewhat similar to their Forest Buzzard counterparts, with some paler juvenile Steppe Buzzards in particular being similar in plumage to the closely related Forest Buzzard. As a non-breeding migrant from the Palearctic, Steppe Buzzard is typically only present in southern Africa in October–April; 'over-wintering' birds are present but uncommon to rare outside this period.

The underparts, including underwing-coverts, of juvenile Steppe Buzzards are white with extensive, even streaking throughout and are very similar to juvenile Forest Buzzards (Figs. 11–14). As with juvenile Forest Buzzard, the tail is evenly barred throughout and lacks the broader subterminal band of the adult. Underwings show indistinct carpal patches with pale, streaked median coverts. Secondaries appear uniformly dark above. They usually show mostly or all-dark tibial feathers and broad, adult-like bands on the tips of the remiges.

Augur Buzzard *Buteo augur*

Augur Buzzard and Jackal Buzzard differ from the other three species considered here in their larger size and bulkier, thickset appearance, being up to 1.5–2.0 times heavier and larger. Their heads appear particularly large and their tails noticeably short (although the latter feature is less evident in juveniles): When perched the wingtips of both species extend beyond the tip of the tail, unlike in the other three. In flight, both show particularly broad wings with more bulging trailing edges, longer 'hands' and noticeably shorter tails, although again these features are not as obvious in juveniles.

Juvenile Augur Buzzards (Figs. 15–17) usually differ from typical juvenile Jackal Buzzards in that the underparts, including the underwing-coverts, are pale buff to whitish, not rufous, although the rufous coloration of many juvenile Jackal Buzzards fades to buff, even whitish, over time. The throat and breast-sides typically have dark streaks, and these markings sometimes extend to the flanks, posterior underparts and thighs. Especially in fresh juvenile Jackal Buzzards, such dark markings are less obvious set against the typically rufous underparts. In flight from below, the dark carpal

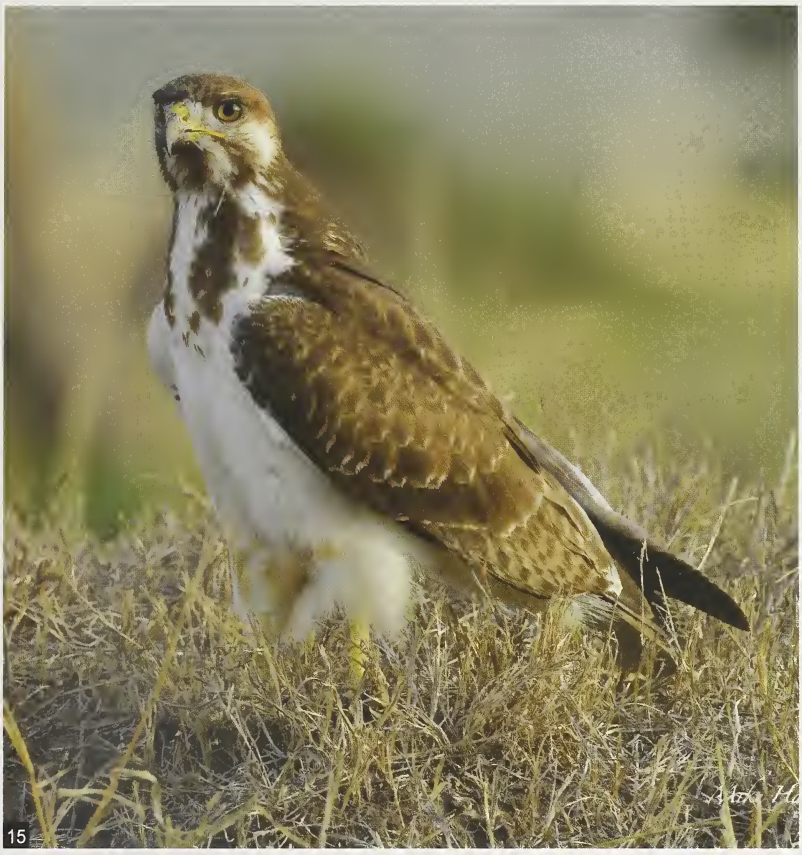

Figure 15. Juvenile Augur Buzzard *Buteo augur*, Masai Mara, Kenya, 11 September 2013 (Mike Haworth). Much larger than Steppe *B. buteo vulpinus*, Forest *B. trizonatus* or Red-necked Buzzards *B auguralis*, with dark chin, distinctly barred secondaries and lack of rufous cast to head and tail.

Buse augure *Buteo augur* juvénile, Masai Mara, Kenya, 11 septembre 2013 (Mike Haworth). Plus grande que les Buses des steppes *B. buteo vulpinus*, forestière *B. trizonatus* et d'Afrique *B auguralis*, avec le menton sombre, les rémiges secondaires clairement barrées, et la tête et la queue dépourvues de teinte rousse.

Figure 16. Juvenile Augur Buzzard *Buteo augur*, near Chobe River, Botswana, June 2011(Mike Bayman). The pale underwings with dark carpal arcs appear similar to Red-necked Buzzard *B. auguralis*, which rarely has such unmarked underwings. Augur Buzzard always shows a longer, more tapered hand, more bulging trailing edge to the wing, and shorter tail than smaller *Buteo* species. This is only the sixth record for Botswana.

Buse augure *Buteo augur* juvénile, près de la rivière Chobe, Botswana, juin 2011 (Mike Bayman). Le dessous de l'aile pâle avec la zone carpale sombre ressemble à celle de la Buse d'Afrique *B. auguralis*, mais cette dernière a rarement le dessous de l'aile aussi uni. La Buse augure a la main plus longue et plus effilée, le bord postérieur de l'aile plus saillant et la queue plus courte que les espèces de *Buteo* plus petites. Ceci n'est que la sixième mention pour le Botswana.

Figure 17. Juvenile Augur Buzzard *Buteo augur*, moulting to second plumage, Kenya, September 1999 (Bill Clark). Note distinctly barred secondaries, pale primaries and lack of a rufous cast to head and tail.

Buse augure *Buteo augur* juvénile en train d'acquérir son deuxième plumage, Kenya, septembre 1999 (Bill Clark). Noter les rémiges secondaires clairement barrées, les primaires pâles, et la tête et la queue dépourvues de teint roux.

arcs on pale wings in the juvenile Augur stand out, similar to juvenile Red-necked, but the latter has less distinct bands on the flight feathers. In flight from above, the upperwings show greyish-brown barred secondaries that contrast with both the uniform darker greater upperwing-coverts and the paler primaries.

Jackal Buzzard *Buteo rufofuscus*

Juveniles are brown on the head and upperparts (Figs. 18–21). The underparts, including the underwing-coverts, are distinctively plain rufous, a critical identification feature. However, this colour typically fades to buff in older juveniles, sometimes in an uneven mosaic fashion but often last on the thighs and undertail-coverts. The tail is brown, with a rufous cast when fresh, and has narrow, evenly spaced darker brown bars throughout. In flight from below, the remiges are faintly barred with a fairly distinct dark trailing edge. Juvenile Jackal Buzzard resembles juvenile Augur Buzzard, but has heavily marked rather than unmarked underwing-coverts and is darker and more uniformly rufous, or buff, below with

Figure 18. Typical fairly fresh juvenile Jackal Buzzard *Buteo rufofuscus*, South Africa, 1 May 2015 (Neil Ebedes). Note largely plain rufous underparts.

Buse rounoir *Buteo rufofuscus* juvénile typique au plumage assez frais, Afrique du Sud, 1 mai 2015 (Neil Ebedes). Noter le dessous en grande partie roux uni.

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Figure 19. Typical fairly fresh juvenile Jackal Buzzard *Buteo rufofuscus*, South Africa, January 2010 (Jessie Walton). Note largely plain rufous underparts, rufous underwing-coverts with some darker markings including fairly extensive but indistinct carpal arcs, and pale and indistinctly barred flight feathers with strongly contrasting dark trailing edge to the wing.

Buse rounoir *Buteo rufofuscus* juvénile typique au plumage assez frais, Afrique du Sud, janvier 2010 (Jessie Walton). Noter le dessous en grande partie roux uni, les couvertures sous-alaires rousses avec quelques taches plus sombres y compris des arcs carpaux assez étendus mais indistincts, et les rémiges pâles et faiblement barrées avec un bord de fuite sombre fortement contrastant.

Figure 20. Older, more faded juvenile Jackal Buzzard *Buteo rufofuscus*, South Africa, June 2008 (Bill Clark). Note broad-winged, short-tailed appearance, darker head, indistinct markings on flight feathers, pale buffy underparts, and heavily marked underwing-coverts with more extensive carpal arcs.

Buse rounoir *Buteo rufofuscus* juvénile plus âgée au plumage plus terne, Afrique du Sud, juin 2008 (Bill Clark). Noter les ailes larges, la queue courte, la tête plus sombre, les rémiges faiblement barrées, les parties inférieures chamois pâle, les couvertures sous-alaires tachetées et les arcs carpaux assez étendus.

Figure 21. Juvenile Jackal Buzzard *Buteo rufofuscus*, moulting into second plumage, South Africa, September 1998 (Bill Clark). Upperparts similar to Augur Buzzard *B. augur*, with pale, clearly barred secondaries and pale primary window contrasting with dark coverts.

Buse rounoir *Buteo rufofuscus* juvénile en train d'acquérir son deuxième plumage, Afrique du Sud, septembre 1998 (Bill Clark). Le dessus est comme celui de la Buse augure *B. augur*, avec les rémiges secondaires pâles et clairement barrées et la fenêtre pâle des primaires contrastant avec les couvertures sombres.

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less obvious carpal arcs and less distinctly barred secondaries and tail. The upperparts resemble those of juvenile Augur.

Records of Red-necked Buzzards in southern Africa, including a re-assessment of an earlier published South African *Buteo* record

The recent records of Red-necked Buzzard in southern Africa are listed in Table 1. These prompted us to re-assess a record from August 2001, previously published by one of us (Clark 2009b), of a putative Forest Buzzard in Kgalagadi Transfrontier Park in north-western South Africa, well outside the species' normal range and habitat. The bird was identified as a pale juvenile Forest Buzzard, as the only other possible candidates considered then were Jackal, Augur and Steppe Buzzards. We re-examined the three photographs of the Kgalagadi buzzard published in Clark (2009b), two of which are reproduced here as Figs. 27–28, and compared them to photographs of pale juvenile Forest Buzzards in the hand, perched and in flight (Figs. 7–10), and of juvenile Red-necked (Figs. 1–6, 23–25).

Although there is some overlap in characters, we believe that various features point to the Kgalagadi bird being a juvenile Red-necked Buzzard. Specifically, the head shows a slight rufous cast and lacks a narrow pale supercilium and dark stripe behind the eye. The lack of noticeable banding on the underside of the remiges and the pale underwing with dark carpal arc are also

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Figure 22. Red-necked Buzzard *Buteo auguralis*, Ngepi Camp, western Caprivi, Namibia, 8 March 2009 (Rolf Wiesler). This individual has almost completely moulted into adult plumage (note dark eye and adult tail), with white underparts and dark breast, spotting on belly and flanks typical of adult plumage. Note juvenile p10 and a few retained juvenile secondaries that differ from dark-tipped adult remiges.

Buse d'Afrique *Buteo auguralis*, Ngepi Camp, Caprivi de l'ouest, Namibie, 8 mars 2009 (Rolf Wiesler). Cet individu a presque entièrement acquis le plumage adulte, avec le dessous blanc et la poitrine sombre, et les taches sur le ventre et les flancs typiques de l'adulte (noter aussi l'œil sombre et la queue adulte) ; p10 est encore juvénile ainsi que quelques rémiges secondaires qui diffèrent des rémiges adultes au bout sombre.

Table 1. Records of Red-necked Buzzard *Buteo auguralis* in southern Africa.
Tableau 1. Mentions de la Buse d'Afrique *Buteo auguralis* en Afrique australe.

Age	Date & Time	Locality	Country	Coordinates	Habitat	Observer	Figures
Juvenile	August 2001	Kgalagadi Transfrontier Park	South Africa	Not available	Tall acacias along river course	WSC	27–28
Adult	10.25 hrs, 8 March 2009	Ngepi Camp	Namibia	Not available	Not available	Grahame Snow, Karin & Rolf Wiesler, et al.	22
Juvenile	11.17 hrs, 11 August 2012	Mahango Game Reserve, Bwabwata National Park	Namibia	18°20'S 21°7396'E	Open floodplain of Kavango River with acacias and baobabs	Doug Hayman	23
Juvenile	c.10.30 hrs, 11 July 2014	Chobe National Park	Botswana	17°83'S 25°113'E	Open forest along Chobe River	Peter Roberts, Peter McCalmont, et al.	24
Juvenile	c.10.00 hrs, 28 July 2014	Buffalo Core Area, Bwabwata National Park	Namibia	18°06'S 21°403'E	Mature broad-leaved (teak) woodland	Etienne Marais et al.	25
Adult	2 January 2015	Kasane Forest Reserve	Botswana	Not available	Not available	Ian White	26

Figure 23. Juvenile Red-necked Buzzard *Buteo auguralis*, Mahango Game Reserve (Bwabwata National Park), Namibia, 11 August 2012 (Doug Hayman). Note rufous cast to the head-sides, unmarked whitish underparts and plain dark upperparts typical of worn juveniles, as well as the lack of narrow pale supercilium and dark stripe behind the eye.

Buse d'Afrique *Buteo auguralis* juvénile, Mahango Game Reserve (Parc National de Bwabwata), Namibie, 11 août 2012 (Doug Hayman). Noter les côtés de la tête teintés de roux, le dessous blanchâtre sans taches et le dessus sombre uni typiques de juvéniles au plumage usé, ainsi que l'absence d'un sourcil pâle et d'un trait foncé derrière l'œil.

Figure 24. Juvenile Red-necked Buzzard *Buteo auguralis* moulting into adult plumage, Chobe National Park, Botswana, 11 July 2014 (Peter McCalmont). Note rufous cast to the head-sides, uniform dark head and upperparts without buff edges, whiter underparts, and heavier markings on the chest compared to juveniles.

Buse d'Afrique *Buteo auguralis* juvénile en train d'acquérir le plumage adulte, Parc National de Chobe, Botswana, 11 juillet 2014 (Peter McCalmont). Noter les côtés de la tête teintés de roux, la tête et les parties supérieures sombres sans lisérés chamois, ainsi que le dessous plus blanc et la poitrine plus fortement tachetée que chez les juvéniles plus jeunes.

Figure 25. Juvenile Red-necked Buzzard *Buteo auguralis*, Buffalo Core Area (Bwabwata National Park), Namibia, 28 July 2014 (Etienne Marais). A typical juvenile with rufous cast to the head-sides, plain dark secondaries, blotching on breast and flanks, and rufous cast to uppertail, but no narrow pale supercilium and dark stripe behind the eye.

Buse d'Afrique *Buteo auguralis* juvénile, Buffalo Core Area (Parc National de Bwabwata), Namibie, 28 juillet 2014 (Etienne Marais). Un juvénile typique avec les côtés de la tête teintés de roux, les rémiges secondaires uniformément sombres, la poitrine et les flancs tachetés, et le dessus de la queue nuancé de roux, mais sans sourcil pâle ni trait foncé derrière l'œil.

Figure 26. Adult Red-necked Buzzard *Buteo auguralis*, Kasane Forest Reserve, Botswana, 2 January 2015 (Ian White). Note dark eye and plain brown throat and upper breast.

Buse d'Afrique *Buteo auguralis* adulte, Forêt classée de Kasane, Botswana, 2 janvier 2015 (Ian White). Noter l'œil sombre et la gorge et le haut de la poitrine uniformément bruns.

Figure 27. Juvenile Red-necked Buzzard *Buteo auguralis*, Kgalagadi Transfrontier Park, South Africa, August 2001 (Bill Clark). This individual has a brownish head with a slight rufous cast, lacks a narrow pale supercilium and dark stripe behind the eye, and shows a band of dark markings across the lower chest with the upper chest, belly and leggings unmarked—the opposite of the typical pattern in juvenile Forest Buzzard *B. trizonatus*. As discussed in the text, it was originally identified as a pale extreme of juvenile Forest Buzzard.

Buse d'Afrique *Buteo auguralis* juvénile, Parc Transfrontalier Kgalagadi, Afrique du Sud, août 2001 (Bill Clark). Cet individu a la tête brunâtre légèrement teintée de roux sans sourcil pâle ni trait foncé derrière l'œil, le dessous blanc avec une bande de taches sombres sur le bas de la poitrine, avec le haut de la poitrine, le ventre et les culottes sans taches—le contraire du pattern typique d'un juvénile de la Buse forestière *B. trizonatus*. L'oiseau avait initialement été identifié comme une Buse forestière juvénile extrêmement pâle.

Figure 28. Juvenile Red-necked Buzzard *Buteo auguralis*, Kgalagadi Transfrontier Park, South Africa, August 2001 (Bill Clark). No markings on whitish underwing-coverts or leg feathers, while the undersides to the secondaries show no dark banding.

Buse d'Afrique *Buteo auguralis* juvénile, Parc Transfrontalier Kgalagadi, Afrique du Sud, août 2001 (Bill Clark). Noter l'absence de taches sur les couvertures sous-alaires et les plumes des pattes blanchâtres, et il n'y a pas de barres sombres sur le dessous des rémiges secondaires.

more typical of Red-necked than Forest Buzzard. Additionally, almost all juvenile Forest Buzzards have dark leg markings; these are entirely absent on the Kgalagadi bird. Finally, the pattern of centrally placed drop-like streaks on the lower chest is typical of many juvenile Red-necked but is not seen in Forest Buzzard, which in contrast tends to show a pale, unmarked band across the lower chest with darker marking above and below.

Re-identification of the Kgalagadi bird as a juvenile Red-necked Buzzard makes it chronologically the first for the subregion; it is also by far the southernmost record, and the first and only one for South Africa. The timing of the record lies outside the period of normal occurrence of Steppe Buzzards in the subregion (Harrison *et al.* 1997). In addition, the location lies *c.*800 km south of the northern Namibia and northern Botswana regions from which the recent Red-necked Buzzard records have come, and *c.*900 km from the regular range of Forest Buzzard to the south and east.

Discussion

These six records represent the first Red-necked Buzzards for southern Africa: Namibia (n = 3), Botswana (n = 2) and South Africa (n = 1). The birds were all seen in the Kalahari Basin and in five different years (2001, 2009, 2011, 2014, 2015), and thus do not represent a single influx but rather suggest regular vagrancy from breeding populations further north. Red-necked Buzzards apparently display few seasonal movements in the nearby forested parts of their breeding range (Gabon, Congo-Brazzaville, western Democratic Republic of Congo, to north-west Angola), whereas populations further north migrate *c.*700–1,000 km twice each year. Breeding by these northern populations occurs during the dry season (November–April; Buij & Croes 2014, Dowsett-Lemaire & Dowsett 2014), after which the vast majority moves into the Sahel during the wet season (from May). Populations migrate south again after the rains, to Guinea savannas and the rainforest zone (in September–November; Thiollay 1977). In the central African rainforests south to Angola, breeding occurs from October (Ferguson-Lees & Christie 2001), or earlier (August; Buij 2008), thus dispersal of juveniles can be expected during the Kalahari austral wet season, from November.

The new southern African records included four worn juveniles during the Kalahari austral dry season in July and August, at a time when most individuals of northern populations have followed the rains into the Sahel (10–16°N). However, they also include two older, adult or near-adult birds in January and March, when northerly Red-necked Buzzards have moved south to breed. The southern African birds may thus have originated from these, or from the nearby populations inhabiting the central African forests and woodlands.

Irrespective of their origin, now that the attention of observers has been drawn to the hitherto unsuspected presence of Red-necked Buzzards in southern Africa, future observations should reveal whether the species regularly disperses to the Kalahari Basin and the seasonality, if any, of these movements.

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[a] *Wageningen University and Research Centre, Droevendaalsesteeg 3A, 6708 PB Wageningen, Netherlands. E-mail: ralph.buij@gmail.com*

[b] *PO Box 531467, Harlingen, Texas 78550, USA. E-mail: raptours@earthlink.net*

[c] *Durban Natural Science Museum, PO Box 4085, Durban 4000, South Africa. E-mail: david.allan@durban.gov.za*

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Ornithological observations around Tunis, Tunisia

Bruno Boedts

Observations ornithologiques aux environs de Tunis, Tunisie. Les zones humides aux environs de Tunis constituent d'importants lieux d'hivernage et de passage pour de nombreux oiseaux. Lors de deux séjours en Tunisie passés en 2003–05 et 2012–14, 173 espèces ont été observées, comprenant deux espèces considérées comme Menacées, deux comme Vulnérables et six comme Quasiment menacées, principalement à la Sebkhet Ariana, un lac salé de la banlieue nord de Tunis, ainsi qu'à d'autres sites au nord-est de la Tunisie. De plus, les historiques de vie de Flamants roses *Phoenicopterus roseus* bagués vus aux environs de Tunis sont présentés.

Summary. The wetlands around Tunis represent important wintering and passage stopover areas for many birds. During two stays in Tunisia in 2003–05 and 2012–14, 173 species were observed, including two considered globally Endangered, two Vulnerable and six Near Threatened, mainly at Sebkhet Ariana, a saline lake in the northern suburb of Tunis, and other sites in north-east Tunisia. In addition, details on ringed Greater Flamingos *Phoenicopterus roseus* observed around Tunis are presented.

While resident in Tunisia in 2003–05 and 2012–14 and, additionally, during short stays in 2005–12, I made *c.*200 ornithological visits to the Tunis area, mainly to wetlands, of which two are recognised as Important Bird Areas (IBAs; Amari & Azafzaf 2001; Fig. 1). These easily accessible sites are threatened by sprawling urbanisation. Given the rapid changes caused by their environmental degradation, there is a need to monitoring their bird populations closely,

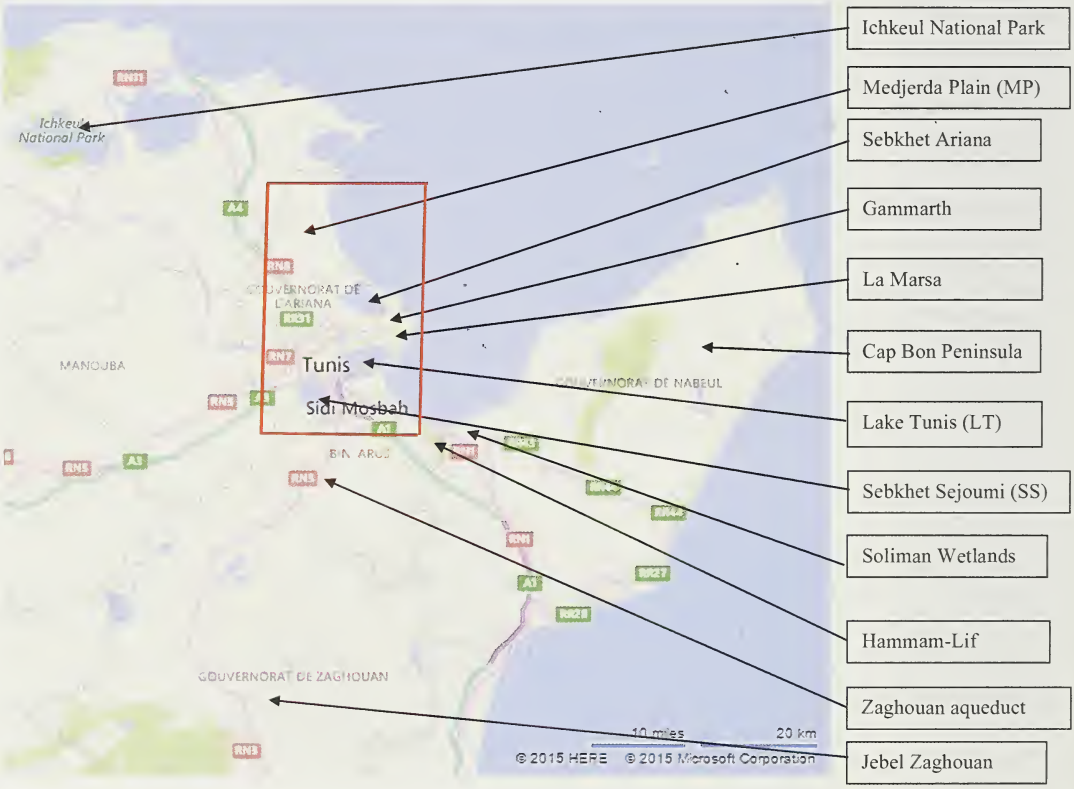

Figure 1. Location of visited sites around Tunis (study area framed in red).
Situation des sites visités dans les environs de Tunis (zone d'étude encadrée en rouge).

Figure 2. View of Sebkhet Ariana (background) and flooded mudflats (foreground), Tunisia, January 2013 (B. Boedts)

Vue sur la Sebkhet Ariana (arrière-plan) et les vasières inondées (avant-plan), Tunisie, janvier 2013 (B. Boedts)

especially those species considered to be declining. The records presented here contribute to this.

Study area

Sebkhet Ariana (SA), located in the northern suburb of Tunis (36°52'N 10°11'E), was the site most regularly visited between March 2003 and July 2005 (30 visits in 29 months) and sometimes several times a week, except in July–August, from September 2012 to June 2014 (85 visits in 22 months). The term sebkhet refers to a depression of salt-impregnated soil devoid of vegetation (Isenmann *et al.* 2005). Sebkhet Ariana, which is *c.*5,000 ha in extent (Wikipedia 2015), dries up partially in summer, from May (Fig. 2). Bird counts were generally made from the north, near the coast, an area which is gradually being acquired by holiday resorts. Additional observations were made from the south, where in winter birds are hunted from a hide.

The other wetlands visited include Lake Tunis (LT), a shallow coastal lagoon of *c.*4,000 ha located between the city and the Gulf of Tunis, and its environs (IBA TN009; 20 visits). In 2013–14, nine visits were also made to Sebkhet Sejoumi (SS), a shallow basin of *c.*3,900 ha near the centre of Tunis (IBA TN010).

Less regular visits were made to the cultivated fields and coastal area (estuary, lagoons, marshes, beaches, steppes) of the Medjerda Plain (MP), the maritime pine forests at the tourist area of Gammarth, north of La Marsa, and, in 2012–14, to the fields and thickets near the American cemetery at La Marsa (where small birds are trapped in spring and partridges hunted in winter).

Additionally, I present some noteworthy observations from sites not treated here as the study area proper. It includes the city of Tunis; to the south-east: the road to Hammam-Lif and the Soliman wetlands (IBA TN011; four visits in 2003–13); to the east: the Cap Bon peninsula including Jebel el Haouaria (IBA TN004; six visits in 2003–13); to the south-west: the Zaghouan aqueduct (IBA TN013; six visits in 2004–13) and Jebel Zaghouan (three visits in 2011–13); and to the north-west: Ichkeul National Park, Governorate of Bizerte (IBA TN002; eight visits in 2003–13).

Climate is typically Mediterranean with mild, wet autumns/winters (September to February) and hot dry springs/summers (March to August).

Results

In total, 173 bird species were observed (see Appendix 1). Of these, two are classified as Endangered (White-headed Duck *Oxyura leucocephala*, Egyptian Vulture *Neophron percnopterus*), two as Vulnerable (Yelkouan Shearwater *Puffinus yelkouan*, Marbled Teal *Marmaronetta angustirostris*) and six as Near Threatened (Ferruginous Duck *Aythya nyroca*, Red-footed Falcon *Falco vespertinus*, Black-tailed Godwit *Limosa limosa*, Eurasian Curlew *Numenius*

arquata, Audouin's Gull *Larus audouinii*, European Roller *Coracias garrulus*).

At wetlands around Tunis, wintering was noted for all of the four recorded grebe species, large numbers of Greater Flamingos *Phoenicopterus roseus*, 70% of the 30 shorebirds, almost all 14 ducks (in large numbers) and 50% of the 14 gulls and terns. Tens of thousands of shorebirds regularly stopover on their north- and southbound migrations. In green spaces near residential areas north of the city and in the steppes of the Medjerda Plain, 28% of the 61 passerines recorded were winter visitors. In spring, at least five raptor species were seen singly or in groups en route to Cap Bon, from where they cross the Mediterranean.

Notes on selected species

The following notes provide details on species of conservation concern as well as new or at least remarkable observations regarding extension of the known range, unusual dates or presence, interesting breeding data or noteworthy numbers. Sequence and taxonomy follow Isenmann *et al.* (2015) with a few amendments. IUCN conservation status (BirdLife International 2015): EN = Endangered, VU = Vulnerable, NT = Near Threatened.

Red-necked Grebe *Podiceps grisegena*
SA: just three on 17 January 2004 although Azafzaf *et al.* (2015) mention 'some observations in small numbers during 2003–2004 winter at Sebkhet Ariana (B. Boedts) adding to the only four records made in Tunisia in 1970–72'.

Black-necked Grebe *Podiceps nigricollis*
SA: large gatherings in late winter, e.g. >400 on 20–23 March 2013 and 850 on 20 March 2014. In small numbers elsewhere, e.g. LT: 15 on 3–5 December 2013 and ten on 27 December 2013. Previously more numerous, with several thousand recorded in the 1970s and 1980s at LT (Amari & Azafzaf 2001).

White Stork *Ciconia ciconia*
SS: one record of >100 passing on 27 April 2013. MP: breeds in small numbers in May–June on platforms atop power poles, with three nests occupied on 5 June 2013. Winter records: three near a garbage discharge on 13 January 2014 and five at Soliman on 30 December 2003. Some occasionally winter in Tunisia, but such records perhaps refer to early migrants (Isenmann *et al.* 2005).

Greater Flamingo *Phoenicopterus roseus*
SA and SS: large gatherings in winter with >10,000 per site and occasionally more (e.g. 17,000 at SA in January 2013: Azafzaf *et al.* 2015), sometimes also later in the year (>15,000 at SS on 22 June 2013). Also present at LT in winter in smaller numbers. Can be absent in late summer, when SA almost completely dries out, although some apparently very weak individuals occasionally remain. Ringed birds were regularly observed; 24 rings were read by telescope at SA (2005, 2014) and SS (2014). Ringing data (Appendix 2) revealed that about half of these originated from France and were generally first- or second-winter birds. Four had been recorded at another Tunisian wetland a few months previously. There is a passage of flamingos between Tunisian lakes including almost daily exchanges between SA, LT and SS. Many remain for several months in the country before returning to breeding sites in Europe. Two, aged 23 and 24 years, from the French colony of Camargue also made several round-trips between southern France and elsewhere in the western Mediterranean. Other ringed flamingos came from Italy, Sardinia and Spain. Flamingos of seven and eight years old from the Sardinia colony *c.*300 km distant, were observed at SA after not having been reported for several years.

Common Shelduck *Tadorna tadorna*
SA and SS: on average 5,000–7,000 and *c.*3,000, respectively, in October–March 2012–14. SS normally supports the largest concentrations in Tunisia, with 1,000–12,500 (Amari & Azafzaf 2001) and occasionally more (e.g. 16,100 in winter 2009: Azafzaf *et al.* 2015) but in 2012–14 numbers were smaller than previous years and concentrations higher at SA than SS. In November 2012–late January 2013, hundreds died from botulism, both at SA and SS. The disease, which was present in the area since 2010 (H. Azafzaf pers. comm.), has probably depressed numbers, but was not recorded in 2013–14. Outside this period, small groups of a few dozen occur (SA: 60 moulting on 7 June 2014; 15 juveniles on 17 August 2013).

Marbled Teal *Marmaronetta angustirostris* VU
SA: 30 on 9 January 2005 and a single in June 2014. Also 20 at Soliman on 14 September 2003. The January record is unusual as this species mainly winters (in its thousands) in southern Tunisia. The two summer–autumn records concern birds presumably en route to the non-saline lakes of the Cap Bon peninsula, which support several hundred individuals. Nesting, in late May–June, has been recorded at SS in 1976, SA in 1987 and LT in 1988 (Isenmann *et al.* 2005).

Ferruginous Duck *Aythya nyroca* NT
SA: five on 17 August 2013. SS: two males with a group of Eurasian Coots *Fulica atra* on 29 March 2014. Breeds on the Cap Bon peninsula, where 12 juveniles with adults were observed in July 2003. The creation of lakes at this site has increased breeding since the 1990s. Some of those seen between July and October may breed in Eastern Europe (Isenmann *et al.* 2005).

White-headed Duck *Oxyura leucocephala* EN
SS: a single observation of 15 males and five females on 29 March 2014. Breeding sites include the lakes around Tunis before the 1960s and Cap Bon since the 1970s (Isenmann *et al.* 2005).

Egyptian Vulture *Neophron percnopterus* EN
Jebel Zaghouan: probably breeding. Two on 25 June 2011 and five on 22 June 2013. A migrant breeder found at all major rock faces in northern Tunisia (Isenmann *et al.* 2005).

Griffon Vulture *Gyps fulvus*
La Marsa: a juvenile on 11 May 2014. Possibly a wandering bird from Italy where the species was recently reintroduced (Azafzaf *et al.* 2015).

Osprey *Pandion haliaetus*
SA: one on the shore on 16 October 2013. Sea (Gammarth): one on 27 April 2014. Lake Ichkeul: one on 1 February 2004 and three on 22 January 2005. Observed on both passages in Tunisia. Countrywide up to ten wintered in 2013 and 2014 (Azafzaf *et al.* 2015).

Lesser Kestrel *Falco naumanni*
SA: six on 17–18 August 2013. MP: four on 13 October 2013. These birds could come from the Zaghouan aqueduct, where *c.*30 breeding pairs were counted in May 2004, 2005 and 2013 (the number of pairs seems stable since 1975: Isenmann *et al.* 2005). A juvenile was offered for sale near the aqueduct in 2013. Jebel Zaghouan: five hunting grasshoppers on 22 June 2013.

Black-winged Stilt *Himantopus himantopus*
SA and SS: in scattered groups with larger numbers in winter (a few hundred) and in spring. Up to 800 at SA on 12 May 2013 and the same number at SS on 15 March 2014. Wintering numbers have increased in Tunisia (Azafzaf *et al.* 2015). Breeds in May–June at SA (20 juveniles on 21 June 2014) and MP (one juvenile on 15 June 2013). Outside these periods, variable numbers of tens or hundreds.

Pied Avocet *Recurvirostra avosetta*
SA: in groups of a few dozen, with larger numbers in winter (up to 1,500 on 16 March 2014). Wintering numbers have increased in Tunisia (Azafzaf *et al.* 2015). Breeds in June: 12 juveniles on 21 June 2014, *c.*10 nests near those of Little Tern *Sternula albifrons* on 29 June 2013 and two juveniles on 17 August 2013.

Little Ringed Plover *Charadrius dubius*
SA: singly or in small groups of max. 10 (on 17 August 2013). One winter record, at LT: one on 6 January 2013. Occasionally winters in Tunisia (Isenmann *et al.* 2005).

Common Ringed Plover *Charadrius hiaticula*
SA: singly or in small groups of up to ten. An exceptional record of 1,800 within a group of >30,000 shorebirds on 12–13 October 2013 (Fig. 5). Also 50 on 2 May 2014.

Kentish Plover *Charadrius alexandrinus*
SA: *c.*15,000 on 12–13 October 2013 and 3,000 on 2 November 2003. In October–November, sharp increase of several thousand birds, probably of European origin (Isenmann *et al.* 2005). Declines to a few tens or hundreds in winter. Breeds at SA: 600 with several juveniles on 29 June 2013. MP (beach): three juveniles on 15 June 2013.

Figure 3. Long-legged Buzzard *Buteo rufinus*, Ichkeul National Park, Bizerte Governorate, Tunisia, December 2008; a similar individual was present at La Marsa for several weeks in winter 2012–13 (B. Boedts)

Buse féroce *Buteo rufinus*, Parc National de l'Ichkeul, Gouvernorat de Bizerte, Tunisie, décembre 2008 ; un individu similaire était présent à La Marsa pendant plusieurs semaines durant l'hiver 2012–13 (B. Boedts)

Figure 4. Collared Pratincole / Glaréole à collier *Glareola pratincola*, Medjerda Plain, Tunisia, May 2013 (B. Boedts)

Figure 5. Group of >30,000 shorebirds comprising Kentish Plovers *Charadrius alexandrinus* (*c.*50%), Little Stints *Calidris minuta* (30%), Dunlins *C. alpina* (15%) and Ringed Plovers *Charadrius hiaticula* (5%), Sebkhet Ariana, Tunisia, October 2013 (B. Boedts)

Groupe de >30.000 limicoles composé de Gravelots à collier interrompu *Charadrius alexandrinus* (50%), Bécasseaux minutes *Calidris minuta* (30%), Bécasseaux variables *C. alpina* (15%) et Grands Gravelots *Charadius hiaticula* (5%), Sebkhet Ariana, Tunisie, octobre 2013 (B. Boedts)

Figure 6. Little Stints / Bécasseaux minutes *Calidris minuta*, Sebkhet Ariana, Tunisia, March 2013 (B. Boedts)

Figure 7. Little Tern *Sternula albifrons* at nest, Sebkhet Ariana, Tunisia, June 2013 (B. Boedts)

Sterne naine *Sternula albifrons* au nid, Sebkhet Ariana, Tunisie, juin 2013 (B. Boedts)

Figure 8. Little Tern *Sternula albifrons* offering a small fish to its partner, Sebkhet Ariana, Tunisia, June 2013 (B. Boedts)

Sterne naine *Sternula albifrons* offrant un petit poisson à son partenaire, Sebkhet Ariana, Tunisie, juin 2013 (B. Boedts)

Northern Lapwing *Vanellus vanellus*
Common in small groups in winter. One summer record: one at SA on 10 August 2003. Few records in April–September (Isenmann *et al.* 2005).

Sanderling *Calidris alba*
SA: groups of a few dozen or hundred. Up to 300 on 29 December 2012, 200 on 10 May 2014 and 40 in breeding plumage on 12 May 2013. Autumn passage normally commences in late July (Isenmann *et al.* 2005) but two in winter plumage were observed at SA on 7 June 2014.

Little Stint *Calidris minuta*
SA: max. 10,000 on 12–13 October 2013; autumn passage normally ends in September (Isenmann *et al.* 2005). Increasing numbers in spring with peak in May (750 on 20 March 2013; Fig. 6; 800 in breeding plumage on 27 April 2013; 6,000 on 2 May 2014). Smaller numbers elsewhere.

Curlew Sandpiper *Calidris ferruginea*
SA: spring passage commences in late March–April (two in early breeding plumage on 28 March 2005; 20 in breeding plumage on 19 April 2014) with a peak in early May (up to 6,000 on 10 May 2014), then rapidly decreases (1,000 on 12 May 2013; ten on 22 May 2005). Some present in winter. Autumn passage normally begins mid July (Isenmann *et al.* 2005), but 50 in breeding plumage were noted on 7 June 2014, and 25 in winter plumage on 21 June 2014. Elsewhere, less numerous.

Dunlin *Calidris alpina*
SA: generally more abundant on autumn passage, beginning in June with a peak in October (three on 29 June 2013; ten on 9 August 2003; 1,000 on 17 August 2013; 2,500 on 12–13 October 2013). Occasionally numerous in winter (2,000 on 2 November 2003; 300 on 6 November 2004; 500 on 26 December 2004). On spring passage, birds that winter in Gulf of Gabès take a more easterly migration route (Isenmann *et al.* 2005). However, 2,000 on 6 March 2004. Elsewhere, less numerous.

Broad-billed Sandpiper *Calidris falcinellus*
SA: one with Little Stints on 21 March 2005. Winters in small numbers in Tunisia, with several records showing that the species occurs on spring passage (Isenmann *et al.* 2005).

Ruff *Calidris pugnax*
SA: autumn passage from August (ten, including some males still in breeding plumage, on 9 August 2003) to November. Post-breeding passage normally less marked in Tunisia (Isenmann *et al.* 2005) but in 2003 the species was particularly abundant (*c.*3,000 on 2 November 2003). In 2014, spring passage was noticeable (400 on 19 April 2014; 600, including some males in breeding plumage, on 2 May 2014). Elsewhere, in smaller numbers.

Eurasian Woodcock *Scolopax rusticola*
SA: one flushed on 29 December 2012. Few coastal records (Isenmann *et al.* 2005).

Black-tailed Godwit *Limosa limosa* NT
SA: observed on both passages (26 on 15 March 2014; five on 14 June 2014). Sometimes more numerous in winter, with 100 on 28 November 2003. SS: seven on 2 February 2013. Passage is more pronounced in spring than autumn; a few hundred winter in Tunisia (Isenmann *et al.* 2005).

Eurasian Curlew *Numenius arquata* NT
SA: sometimes present in small groups for several weeks in winter (13 on 5 October 2013; 18 on 18 January–15 February 2014; 50 on 29 February 2004). Elsewhere in smaller numbers. Considered a common winter visitor in Tunisia, arriving in July or August (Isenmann *et al.* 2005).

Spotted Redshank *Tringa erythropus*
SA: present in small numbers in winter (35 on 2 November 2013; two on 24 December 2013) and in larger groups in spring (200 on 16 March 2013). Not observed in 2003–05. Early autumn passage: five, including one in breeding plumage, on 1 June 2013 and ten, including several in breeding plumage, on 10 June 2014 (autumn passage normally from mid June/July: Isenmann *et al.* 2005). Max. 350, including some still in breeding plumage, on 28 June 2014.

Common Redshank *Tringa totanus*
SA: small numbers in winter. More numerous on autumn passage (mid June–September: Isenmann *et al.* 2005): one on 8 June 2013; 30 on 14 June

2014; 50 on 29 June 2013; 350 on 19–21 June 2014; 300 on 26 October 2013.

Marsh Sandpiper *Tringa stagnatilis*
SA: singly in winter and in groups of up to a few dozen in spring, occasionally with other shorebirds. Numbers of wintering birds rather small in Tunisia (Isenmann *et al.* 2005). More numerous in spring 2013 (30 with Spotted Redshanks on 16 March 2013; 120 on 20 March 2013; 20 on 6 April 2013). Elsewhere in smaller numbers.

Wood Sandpiper *Tringa glareola*
SA: singly in winter (only occasionally observed at this season in Tunisia: Isenmann *et al.* 2005). In groups on autumn passage, which commences in June (five on 21 June 2014; 20 on 14 July 2003; 35 on 17 August 2013). Just one record on spring passage (SS: ten on 27 April 2013).

Slender-billed Gull *Larus genei*
SA: large groups in April–May (500 on 13 April 2014; 5,000 on 20 April 2005; 400 on 12 May 2013). A failed breeding attempt was noted in June 2014 on an islet with *c.*70 abandoned nests. At SS, 300 pairs bred in 2009 (Azafzaf *et al.* 2015). Few winter records. LT: one on 27 December 2013–13 January 2014. MP (beach): 30 on 9 February 2013.

Lesser Black-backed Gull *Larus fuscus*
SA: both *L. f. graellsii* and *L. f. intermedius* occur in winter, in mixed groups of several hundred birds; e.g. of a group of 800 adults on 17 February 2013, 58% were *L. f. graellsii* and 42% *L. f. intermedius* (despite *L. f. graellsii* being considered to be rather commoner in Morocco and western Algeria, and *L. f. intermedius* in Tunisia / eastern Algeria: Isenmann *et al.* 2005). Gammarth: *c.*1,000 on sea near the coast on 9 February 2013.

Caspian Tern *Hydroprogne caspia*
MP: up to 35 on 31 October 2004. More frequently observed in 2003–05 than in 2012–14, perhaps suggesting that the area is becoming less attractive to this species.

Lesser Crested Tern *Thalasseus bengalensis*
SA: on passage, singly or in larger groups near the coast in spring (e.g. ten on 18 May 2013; 50 on 19 May 2012), often with the next species. More frequently observed in 2012–14 than in 2003–05. Few observations in autumn, although post-breeding passage is said to be more marked (Isenmann *et al.* 2005).

Sandwich Tern *Thalasseus sandvicensis*
SA: increases in April–May, with up to 500 on 10 April 2004 and 28 May 2005. Spring passage is more marked (Isenmann *et al.* 2005). Many observations in winter of singles or groups of up to 20 (LT: 2 January 2014).

Common Tern *Sterna hirundo*
SA: singles on 14 July 2003 and 2 December 2012. LT: up to five on 12 April 2014. Spring passage normally occurs in late March–May and winter records are occasional (Isenmann *et al.* 2005).

Little Tern *Sternula albifrons*
SA: often in large numbers near the coast in spring, e.g. *c.*100 on 12 April 2004 and 150 on 19 April 2014. Approximately 50 nests along the road on 29 June 2013 (Fig. 7) with many birds flying from the sea to the sebkhet with small fish, which were apparently abundant in 2013 and could explain breeding at this unprotected site (Fig. 8). The following year, only a few were breeding at the same site. MP: *c.*500 on 15 June 2013 (probably breeding on islets) and 100 on 23 August 2003. The Tunisian breeding population is estimated at 700–800 pairs, but numbers fluctuate considerably annually (Isenmann *et al.* 2005).

Whiskered Tern *Chlidonias hybrida*
LT: singly in winter and in groups in spring. Not seen in 2003–05. Five foraging in flight on 3–5 December 2013; 20, including 12 in breeding plumage, on 25 March 2014 and 30 in breeding plumage on 11 April 2014. SA: 20 on 13 April 2014 and five on 19 April 2014. Wintering in small numbers is regular and spring passage is more marked. Has bred at SS with 15 pairs in 1991 (Isenmann *et al.* 2005).

Short-eared Owl *Asio flammeus*
SA: one flushed on 28 December 2013. A regular but uncommon winter visitor (Isenmann *et al.* 2005).

Common Swift *Apus apus*
One record in winter: four at MP on 4 January 2004. Just four previously published winter records, from the centre of the country (Isenmann *et al.* 2005, Azafzaf *et al.* 2015).

Alpine Swift *Tachymarptis melba*
Along the highway to Hammam-Liff, a colony of *c.*20 pairs nesting in a quarry in May 2005 was still present in May 2013. This is within a semi-urban area, although the species has never been found breeding in towns in Tunisia, unlike in Morocco and Algeria (Isenmann *et al.* 2005).

European Bee-eater *Merops apiaster*
Large flocks on passage include >150 hunting over cereal fields and resting in thickets at La Marsa on 4 May 2013 (Fig. 9) and >200 flying over the sea near a cliff at Gammarth in the evenings in September 2012. Autumn passage is usually not well marked in Tunisia (Isenmann *et al.* 2005).

Barn Swallow *Hirundo rustica*
Winter records: six at SA on 28 December 2013 and five at SS on 6 December 2013. The few records in December refer to late migrants (Isenmann *et al.* 2005).

Red-throated Pipit *Anthus cervinus*
MP: one on 4 November 2012 (Fig. 10) and two on 28 December 2013. Also seen there by other observers (Selosse 2001). SA: in small groups of up to 15 in breeding plumage on 8 March 2014 (spring passage). Autumn passage is not well marked in Tunisia but wintering is regular (Isenmann *et al.* 2005).

Yellow Wagtail *Motacilla flava*
MP: breeders of *M. f. cinereocapilla* and ten juveniles (probably of the same subspecies) hunting insects in aquatic vegetation on 16 June 2013. Published breeding near the wetlands of Tunis concerned *M. f. iberiae*; there is just one record of a single *M. f. cinereocapilla* in June 1993, at Korba, Cap Bon (Isenmann *et al.* 2005).

Winter Wren *Troglodytes troglodytes*
La Marsa: two singing on 25 December 2013 and one on 17–23 March 2013. Also a single heard at Ichkeul on 18 April 2004. No previous records around Tunis. Probably some birds from Europe winter in October–March (Isenmann *et al.* 2005).

Eurasian Reed Warbler *Acrocephalus scirpaceus*
La Marsa: a single observation of a singing individual in May 2005. No previous records around Tunis. A migrant breeder in northern Tunisia, but birds singing regularly in April–May should not always be taken for breeders (Isenmann *et al.* 2005).

Goldcrest *Regulus regulus*
La Marsa: one in pine trees on 10 February 2013. No previous records around Tunis. A regular winter visitor to the north, no doubt in small numbers varying annually (Isenmann *et al.* 2005).

Eurasian Jay *Garrulus glandarius*
La Marsa: single on 17 February 2013. Breeds in oak woods in the north-west, where resident; just two undocumented records away from this area probably refer to visitors from Europe (Isenmann *et al.* 2005).

Red Crossbill *Loxia curvirostra*
La Marsa: a single observation of a male and two females of *L. c. poliogyna* in pine trees on 27 January 2013. Breeds in Aleppo pine forests in the north-west, but few observations further east (Isenmann *et al.* 2005).

Discussion

Rare species for north-east Tunisia were recorded, such as Red-necked Grebe, Squacco Heron *Ardeola ralloides*, Griffon Vulture, Broad-billed Sandpiper, Eurasian Woodcock, Short-eared Owl, Goldcrest, Eurasian Jay and Red Crossbill. Comparison of observations made in 2003–05 with those in 2012–14 suggests a decrease for some species, e.g. Caspian Tern, Black Tern *Chlidonias niger*, Common Kingfisher *Alcedo atthis* and European Nightjar *Caprimulgus europaeus*. On the other hand, several species observed in 2012–14 were not previously seen, or only in smaller numbers, such as Purple Swamphen *Porphyrio porphyrio*, Spotted Redshank, Marsh Sandpiper, Ruddy Turnstone *Arenaria interpres*, Lesser Crested Tern and Whiskered Tern.

Accipitridae wintering in the area include Black-shouldered Kite *Elanus caeruleus*, Western

Figure 9. European Bee-eaters *Merops apiaster*, near the American Cemetery, La Marsa, Tunisia, May 2013 (B. Boedts)

Guêpiers d'Europe *Merops apiaster*, près du Cimetière américain, La Marsa, Tunisie, mai 2013 (B. Boedts)

Figure 10. Red-throated Pipit / Pipit à gorge rousse *Anthus cervinus*, Medjerda Plain, Tunisia, November 2012 (B. Boedts)

Marsh Harrier *Circus aeruginosus*, Eurasian Sparrowhawk *Accipiter nisus*, Long-legged Buzzard *Buteo rufinus* (suspected to breed near Zaghouan aqueduct) and to a lesser extent Osprey and Peregrine Falcon *Falco peregrinus* (race *calidus* observed in autumn/winter and race *brookei* in summer at Jebel Zaghouan). Other raptors, such as European Honey Buzzard *Pernis apivorus*, Black Kite *Milvus migrans* and Booted Eagle *Hieraaetus pennatus* (the latter two suspected to breed at the limit of their usual breeding ranges) were numerous on spring passage, while singles of Montagu's Harrier *Circus pygargus*, Eleonora's Falcon *Falco eleonorae* and Red-footed Falcon *F. vespertinus* were occasionally recorded. Lesser Kestrel has a stable breeding colony in the area and was seen in autumn in small groups away from this site. Egyptian Vulture is also suspected to breed at Jebel Zaghouan.

Wetlands around Tunis, especially Sebkhet Ariana, are important wintering areas for waterbirds, especially for Great Cormorant *Phalacrocorax carbo*, Greater Flamingo and different species of Anatidae, of which the most abundant are Common Shelduck and Northern Shoveler *Anas clypeata*. Comparison with older data suggests a decrease for species such as Black-necked Grebe and Common Shelduck. In general, however, numbers remain high. In addition, cases of unusual wintering were recorded for White Stork, Common Swift and Barn Swallow. Occasional wintering was also noted for Little Ringed Plover and Common Tern.

Most shorebirds are present on both passages with several tens of thousands of individuals involved. Larger numbers on autumn passage were noted in 2003 for Ruff and in 2013–14 for Little Stint, Curlew Sandpiper and Spotted Redshank. Important gatherings of European Bee-eaters were noted on both passages.

In residential areas, several European passerines regularly winter, such as White Wagtail *Motacilla alba*, Winter Wren, European Robin *Erithacus rubecula*, Black Redstart *Phoenicurus ochuros*, Whinchat *Saxicola rubetra*, European Stonechat *S. rubicola*, Common Chiffchaff *Phylloscopus collybita* and Common Starling *Sturnus vulgaris*. On the steppes of the Medjerda Plain where Greater Short-toed Lark *Calandrella brachydactyla* and Yellow Wagtail *Motacilla flava cinereocapilla* breed, other species are regular winter visitors, e.g. Eurasian Skylark *Alauda arvensis*, Meadow Pipit *Anthus pratensis* and Red-throated Pipit, and passage migrants include Northern Wheatear *Oenanthe oenanthe* and Common Chaffinch *Fringilla coelebs* (*F. c. coelebs* at SA on 8–16 March 2014). At Zaghouan aqueduct, European Roller *Coracias garrulus* breeds.

In spring, some shorebirds breed at Sebkhet Ariana near the coast. At the same season, several species of Laridae and Sternidae also gather. There are few protected sites but some species regularly breed, including Black-winged Stilt, Eurasian Thick-knee *Burhinus oedicnemus*, Collared Pratincole *Glareola pratincola*, Kentish Plover and, more sporadically, Pied Avocet, Slender-billed Gull and Little Tern in 2013–14. In wetlands at the Cap Bon peninsula, breeding was recorded in 2003 for White-headed Duck and Ferruginous Duck.

Being close to the city of Tunis, these endangered wetlands require protective measures to maintain the quality of the environment and bird populations they support. At Sebkhet Ariana, the negative impact of tourism development and hunting should be minimised by avoiding damage / disturbance to sensitive biotopes. Breeding sites also require protection. Given its high waterbird concentrations and the threats to this wetland, it is recommended to classify Sebkhet Ariana as an IBA. The same applies to the wetlands of the Medjerda Plain. At both sebkhets, measures are needed to limit pollution, in particular solid waste and water, which can lead to the occurrence of botulism, as observed in Common Shelducks in autumn/winter 2012–13.

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BP 323 – 1002 Tunis Belvédère, Tunisie. E-mail: boedtsbruno@yahoo.fr

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Appendix 1. Bird species observed around Tunis, Tunisia, 2003–14.

Annexe 1. Espèces d'oiseaux observées aux environs de Tunis, Tunisie, 2003–14.

Bird numbers recorded in the field / Nombre d'oiseaux recensés sur le terrain: maxima given in precise figures or as follows / maximum indiqué par chiffre précis ou comme suit : A = 2–10, B = 11–100, C = 101–1,000, D = 1,001–3,000, E = 3,001–6,000, F = 6,001–15,000, G = >15,000

X = Evidence of breeding observed / Preuve de reproduction obtenue

X = Observed in 2003–05 / Observé en 2003–05

(X) = Observed near the study area / Observé à proximité de la zone d'étude

Sequence and taxonomy follow Isenmann *et al.* (2015) with a few amendments / L'ordre et la taxonomie suivent Isenmann *et al.* (2015) avec quelques amendements.

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PODICIPEDIDAE													
Little Grebe	*Tachybaptus ruficollis*	20	A	A	-	-	-	-	A	-	A	A	A
Great Crested Grebe	*Podiceps cristatus*	A	A	50	A	A	-	A	-	-	A	A	A
Red-necked Grebe	*Podiceps grisegena*	3	-	-	-	-	-	-	-	-	-	-	-
Black-necked Grebe	*Podiceps nigricollis*	B	B	850	A	-	-	-	-	-	-	A	B
PROCELLARIIDAE													
Cory's Shearwater	*Calonectris d. diomedea*	-	-	B	(C)	(C)	(C)	(C)	(C)	-	-	-	-
Yelkouan Shearwater	*Puffinus yelkouan*	-	-	(B)	-	-	-	-	-	-	-	-	-
PHALACROCORACIDAE													
Great Cormorant	*Phalacrocorax carbo*	C	C	C	A	-	-	-	-	-	A	C	C
ARDEIDAE													
Black-crowned Night Heron	*Nycticorax nycticorax*	-	-	-	-	-	1	-	A	15	-	-	-
Squacco Heron	*Ardeola ralloides*	-	-	-	(1)	-	-	-	(1)	-	-	-	-
Cattle Egret	*Bubulcus ibis*	C	B	B	B	B	B	B	B	B	C	C	C
Little Egret	*Egretta garzetta*	A	A	A	B	A	B	A	100	A	100	A	A
Great Egret	*Ardea alba*	4	A	A	-	-	-	-	-	-	A	A	A
Grey Heron	*Ardea cinerea*	A	A	A	A	B	-	-	-	-	20	A	20
Purple Heron	*Ardea purpurea*	1	-	2	-	-	-	-	-	-	-	-	-
CICONIDAE													
White Stork	*Ciconia ciconia*	3	A	A	100	A	A	A	A	A	-	-	5
THRESKIORNITHIDAE													
Glossy Ibis	*Plegadis falcinellus*	-	-	15	(17)	-	-	-	-	-	-	1	-
Eurasian Spoonbill	*Platalea leucorodia*	-	-	(B)	A	A	-	-	-	-	-	(50)	A
PHOENICOPTERIDAE													
Greater Flamingo	*Phoenicopterus roseus*	F	F	F	F	F	G	F	B	B	F	F	F
ANATIDAE													
Greylag Goose	*Anser anser*	(B)	(B)	-	-	-	-	-	-	-	-	-	-
Common Shelduck	*Tadorna tadorna*	F	F	F	B	A	B	B	B	B	F	F	F
Eurasian Wigeon	*Anas penelope*	A	A	A	-	-	-	-	-	-	A	A	600
Gadwall	*Anas strepera*	20	-	-	A	-	-	-	-	-	-	-	-
Common Teal	*Anas crecca*	800	600	B	-	-	-	-	-	-	-	B	B
Mallard	*Anas platyrhynchos*	D	C	1500	B	B	-	-	C	C	-	C	C

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Northern Pintail	*Anas acuta*	B	560	B	-	-	-	-	-	-	-	B	B
Garganey	*Anas querquedula*	-	-	3	-	-	-	-	-	-	-	-	-
Northern Shoveler	*Anas clypeata*	F	E	E	C	-	-	-	-	-	-	B	F
Marbled Teal	*Marmaronetta angustirostris*	30	A	-	-	-	1	-	-	(B)	A	-	-
Common Pochard	*Aythya ferina*	(B)	10	A	-	-	-	-	-	-	-	(B)	(B)
Ferruginous Duck	*Aythya nyroca*	-	-	A	-	-	-	(B)	5	-	-	-	-
Tufted Duck	*Aythya fuligula*	-	-	-	-	-	-	-	-	-	-	50	-
White-headed Duck	*Oxyura leucocephala*	-	-	20	-	-	-	(A)	-	-	-	-	-
ACCIPITRIDAE													
European Honey Buzzard	*Pernis apivorus*	-	-	-	-	20	-	-	-	-	-	-	-
Black-shouldered Kite	*Elanus caeruleus*	1	1	-	-	-	-	-	-	-	1	1	2
Black Kite	*Milvus migrans*	-	-	-	-	2	(A)	-	-	-	-	-	-
Egyptian Vulture	*Neophron percnopterus*	-	-	-	-	-	(5)	-	-	-	-	-	-
Griffon Vulture	*Gyps fulvus*	-	-	-	-	1	-	-	-	-	-	-	-
Short-toed Snake Eagle	*Circaetus gallicus*	-	-	-	-	-	-	-	(1)	-	-	-	-
Western Marsh Harrier	*Circus aeruginosus*	A	A	A	A	A	-	-	-	-	5	A	A
Montagu's Harrier	*Circus pygargus*	-	-	-	1	1	(A)	-	-	-	-	-	-
Eurasian Sparrowhawk	*Accipiter nisus*	1	-	-	-	1	-	-	-	1	-	-	-
Long-legged Buzzard	*Buteo rufinus*	1	1	1	-	1	-	-	-	-	-	1	-
Booted Eagle	*Hieraaetus pennatus*	-	-	-	-	12	(A)	-	-	-	-	-	-
PANDIONIDAE													
Osprey	*Pandion haliaetus*	(3)	(1)	-	1	-	-	-	-	-	1	-	-
FALCONIDAE													
Lesser Kestrel	*Falco naumanni*	-	-	-	-	(60)	(5)	-	6	-	A	-	-
Common Kestrel	*Falco tinnunculus*	A	A	A	A	A	A	A	A	A	A	A	A
Red-footed Falcon	*Falco vespertinus*	-	-	-	-	(1)	-	-	-	-	-	-	-
Eleonora's Falcon	*Falco eleonorae*	-	-	-	-	1	-	-	-	-	-	-	-
Peregrine Falcon	*Falco peregrinus*	-	-	-	-	-	(1)	-	-	-	1	-	(1)
PHASIANIDAE													
Barbary Partridge	*Alectoris barbara*	6	2	A	A	-	-	-	-	-	A	10	A
Common Quail	*Coturnix coturnix*	1	-	-	-	-	-	-	-	-	-	-	-
RALLIDAE													
Common Moorhen	*Gallinula chloropus*	A	25	A	A	A	A	A	A	A	A	A	A
Purple Swamphen	*Porphyrio porphyrio*	-	-	-	-	-	-	-	-	-	9	-	-
Eurasian Coot	*Fulica atra*	A	100	5000	C	A	150	-	50	-	-	-	A
GRUIDAE													
Common Crane	*Grus grus*	A	-	65	-	-	-	-	-	4	-	-	3
HEMATOPODIDAE													

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Eurasian Oystercatcher	*Haematopus ostralegus*	-	-	20	-	-	-	-	1	-	-	1	-
RECURVIROSTRIDAE													
Black-winged Stilt	*Himantopus himantopus*	B	B	C	C	800	B	B	B	B	C	C	C
Pied Avocet	*Recurvirostra avosetta*	B	B	1500	B	B	B	B	B	B	C	C	C
BURHINIDAE													
Eurasian Thick-knee	*Burhinus oedicnemus*	A	20	A	-	A	A	-	-	-	-	A	-
GLAREOLIDAE													
Collared Pratincole	*Glareola pratincola*	-	-	-	50	200	B	B	B	-	-	-	-
CHARADRIIDAE													
Little Ringed Plover	*Charadrius dubius*	1	-	A	A	-	-	-	10	A	A	-	-
Common Ringed Plover	*Charadrius hiaticula*	-	-	A	A	50	-	-	A	A	1800	-	-
Kentish Plover	*Charadrius alexandrinus*	C	C	C	C	B	C	C	C	D	F	E	C
Eurasian Golden Plover	*Pluvialis apricaria*	C	C	B	-	-	-	-	-	-	-	-	250
Grey Plover	*Pluvialis squatarola*	A	A	40	-	-	A	A	A	-	-	A	10
Northern Lapwing	*Vanellus vanellus*	3	-	-	-	-	-	-	1	-	-	A	50
SCOLOPACIDAE													
Sanderling	*Calidris alba*	B	B	C	B	C	A	-	-	-	B	B	300
Little Stint	*Calidris minuta*	B	B	C	C	E	-	-	1	C	F	F	D
Curlew Sandpiper	*Calidris ferruginea*	-	-	A	B	E	B	B	1	A	A	A	A
Dunlin	*Calidris alpina*	-	-	D	A	A	A	-	C	C	D	D	C
Broad-billed Sandpiper	*Calidris falcinellus*	-	-	1	-	-	-	-	-	-	-	-	-
Ruff	*Calidris pugnax*	-	-	B	C	C	-	-	B	B	B	D	C
Eurasian Woodcock	*Scolopax rusticola*	-	-	-	-	-	-	-	-	-	-	-	1
Common Snipe	*Gallinago gallinago*	A	A	A	-	-	-	-	-	-	-	-	5
Black-tailed Godwit	*Limosa limosa*	-	A	B	-	-	A	-	-	-	-	100	-
Bar-tailed Godwit	*Limosa laponica*	-	-	-	-	-	50	-	-	-	-	A	-
Eurasian Curlew	*Numenius arquata*	B	50	B	-	-	-	-	1	-	B	B	B
Spotted Redshank	*Tringa erythropus*	-	B	200	B	B	350	-	-	-	-	B	B
Common Redshank	*Tringa totanus*	A	A	A	-	-	350	1	A	A	300	B	A
Marsh Sandpiper	*Tringa stagnatilis*	-	-	120	B	-	-	-	-	-	-	A	A
Common Greenshank	*Tringa nebularia*	A	A	20	20	-	-	A	A	A	A	A	A
Green Sandpiper	*Tringa ochropus*	A	A	A	A	-	-	-	-	-	3	5	A
Wood Sandpiper	*Tringa glareola*	-	1	-	A	-	5	20	35	-	-	1	1
Common Sandpiper	*Actitis hypoleucos*	1	-	-	1	1	A	-	3	1	1	1	1
Ruddy Turnstone	*Arenaria interpres*	A	A	20	A	1	1	-	-	-	-	A	A
LARIDAE													
Mediterranean Gull	*Larus melanocephalus*	-	-	1	1	-	-	-	-	-	-	-	-
Common Black-headed Gull	*Larus ridibundus*	D	D	C	B	A	A	A	A	B	D	D	D

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Slender-billed Gull	*Larus genei*	1	B	C	E	C	B	A	-	-	-	-	1
Audouin's Gull	*Larus audouinii*	-	-	-	-	-	-	-	1	-	-	-	-
Lesser Black-backed Gull	*Larus fuscus*	C	D	C	-	-	-	-	A	B	B	B	B
Yellow-legged Gull	*Larus michahellis*	B	B	B	B	A	A	A	A	B	B	B	B
STERNIDAE													
Gull-billed Tern	*Gelochelidon nilotica*	-	-	-	6	A	A	1	-	-	-	-	-
Caspian Tern	*Hydroprogne caspia*	-	-	A	A	-	A	A	A	A	35	-	-
Lesser Crested Tern	*Thalasseus bengalensis*	-	-	-	-	50	A	-	-	-	1	A	-
Sandwich Tern	*Thalasseus sandvicensis*	20	-	B	500	500	B	A	-	-	A	A	B
Common Tern	*Sterna hirundo*	-	-	-	5	-	-	1	-	-	-	-	1
Little Tern	*Sternula albifrons*	-	-	-	150	C	500	B	B	-	-	-	-
Black Tern	*Chlidonias niger*	-	-	-	500	A	-	-	C	-	-	-	-
Whiskered Tern	*Chlidonias hybrida*	A	-	A	30	-	-	-	-	-	-	-	A
COLUMBIDAE													
Rock Dove	*Columbia livia*	A	A	A	A	A	40	A	A	A	A	A	A
Eurasian Collared Dove	*Streptopelia decaocto*	A	A	A	A	A	A	A	A	A	A	A	A
European Turtle Dove	*Streptopelia turtur*	-	-	-	-	A	A	A	-	-	-	-	-
Laughing Dove	*Streptopelia senegalensis*	A	A	A	A	A	A	A	A	A	A	A	A
STRIGIDAE													
Short-eared Owl	*Asio flammeus*	-	-	-	-	-	-	-	-	-	-	-	1
Little Owl	*Athene noctua*	1	1	1	1	1	1	1	1	1	1	1	1
CAPRIMULGIDAE													
European Nightjar	*Caprimulgus europaeus*	-	-	-	-	-	-	-	1	-	-	-	-
APODIDAE													
Common Swift	*Apus apus*	4	-	-	C	C	C	C	C	C	-	-	-
Alpine Swift	*Tachymarptis melba*	-	-	-	-	(B)	-	-	-	-	-	-	-
ALCEDINIDAE													
Common Kingfisher	*Alcedo atthis*	1	-	-	-	-	-	-	-	-	-	-	1
MEROPIDAE													
European Bee-eater	*Merops apiaster*	-	-	-	-	150	-	-	A	200	-	-	-
CORACIIDAE													
European Roller	*Coracias garrulus*	-	-	-	-	(10)	(A)	-	-	-	-	-	-
UPUDIDAE													
Hoopoe	*Upupa epops*	-	A	A	A	A	A	A	A	A	A	A	A
ALAUDIDAE													
Greater Short-toed Lark	*Calandrella brachydactyla*	-	-	-	10	A		-	-	-	-	-	-
Lesser Short-toed Lark	*Calandrella rufescens*	-	-	-	-	-	-	-	-	-	1	-	-
Crested Lark	*Galerida cristata*	A	A	A	A	A	A	A	A	A	A	A	20

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Thekla Lark	*Galerida theklae*	-	-	-	-	-	(20)	-	-	-	-	-	-
Eurasian Skylark	*Alauda arvensis*	A	A	A	-	-	-	-	-	-	-	A	10
HIRUNDINIDAE													
Common Sand Martin	*Riparia riparia*	-	-	-	-	100	-	-	-	-	-	-	-
Eurasian Crag Martin	*Ptyonoprogne rupestris*	(A)	-	-	-	-	-	-	-	-	-	-	(A)
Barn Swallow	*Hirundo rustica*	-	A	A	200	A	A	A	A	A	A	-	6
Red-rumped Swallow	*Hirundo daurica*	-	-	(A)	-	-	-	-	(A)	-	-	-	-
Common House Martin	*Delichon urbicum*	-	A	A	A	A	A	A	A	A	-	-	-
MOTACILLIDAE													
Tree Pipit	*Anthus trivialis*	-	-	-	-	1	-	-	-	-	-	-	-
Meadow Pipit	*Anthus pratensis*	A	A	-	-	-	-	-	-	-	-	20	A
Red-throated Pipit	*Anthus cervinus*	A	A	15	-	-	-	-	-	-	-	A	A
Yellow Wagtail	*Motacilla flava*	-	-	20	A	-	A	-	-	-	-	-	-
White Wagtail	*Motacilla alba*	A	A	A	-	-	-	-	-	A	A	A	A
PYCNONOTIDAE													
Common Bulbul	*Pycnonotus barbatus*	A	A	A	A	A	A	A	A	A	A	A	A
TROGLODYTIDAE													
Winter Wren	*Troglodytes troglodytes*	1	1	1	(1)	-	-	-	-	-	-	-	2
TURDIDAE													
Rufous-tailed Scrub Robin	*Cercotrichas galactotes*	-	-	-	(1)	-	-	-	-	-	-	-	-
European Robin	*Erithacus rubecula*	1	1	1	-	-	-	-	-	-	1	1	1
Black Redstart	*Phoenicurus ochuros*	5	A	-	-	-	-	-	-	-	A	A	A
Common Redstart	*Phoenicurus phoenicurus*	-	-	-	(1)	-	-	-	-	-	-	-	-
Moussier's Redstart	*Phoenicurus moussieri*	-	-	-	(1)	(1)	(1)	-	-	-	-	-	-
Whinchat	*Saxicola rubetra*	-	A	5	A	A	-	-	-	-	A	A	-
European Stonechat	*Saxicola rubicola*	A	A	A	-	-	-	-	-	-	-	4	A
Northern Wheatear	*Oenanthe oenanthe*	-	-	A	10	A	-	-	-	-	-	-	-
Black-eared Wheatear	*Oenanthe hispanica*	-	-	-	-	-	(1)	-	-	-	-	-	-
Black Wheatear	*Oenanthe leucura*	-	-	-	-	-	(5)	-	-	-	-	-	-
Blue Rock Thrush	*Monticola solitarius*	-	-	-	-	-	(2)	-	-	-	A	-	-
Eurasian Blackbird	*Turdus merula*	A	A	A	A	A	A	A	A	A	A	A	A
SYLVIIDAE													
Zitting Cisticola	*Cisticola juncidis*	A	A	A	A	A	A	A	A	A	A	A	A
Eurasian Reed Warbler	*Acrocephalus scirpaceus*	-	-	-	-	1	-	-	-	-	-	-	-
Western Olivaceous Warbler	*Hippolais opaca*	-	-	-	-	-	1	-	-	-	-	-	-
Sardinian Warbler	*Sylvia melanocephala*	A	A	A	A	A	A	A	A	A	A	A	A
Western Orphean Warbler	*Sylvia hortensis*	-	-	-	-	1	1	-	-	-	-	-	-
Spectacled Warbler	*Sylvia conspicillata*	-	-	-	-	-	-	-	-	-	-	-	1

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Subalpine Warbler	*Sylvia cantillans*	-	-	(1)	-	-	-	-	-	-	-	-	-
Blackcap	*Sylvia atricapilla*	-	A	A	4	-	-	-	-	-	-	-	-
Western Bonelli's Warbler	*Phylloscopus bonelli*	-	-	-	-	-	(1)	-	-	-	-	-	-
Common Chiffchaff	*Phylloscopus collybita*	A	A	-	-	-	-	-	-	-	A	A	20
Goldcrest	*Regulus regulus*	-	1	-	-	-	-	-	-	-	-	-	-
MUSCICAPIDAE													
Spotted Flycatcher	*Muscicapa striata*	-	-	-	-	10	A	A	A	A	A	-	-
European Pied Flycatcher	*Ficedula hypoleuca*	-	-	-	(1)	-	-	-	-	-	-	-	-
PARIDAE													
African Blue Tit	*Cyanistes teneriffae*	1	1	1	1	(1)	1	1	1	1	1	1	1
Great Tit	*Parus major*	1	1	-	-	-	-	-	-	-	-	1	1
LANIIDAE													
Black-crowned Tchagra	*Tchagra senegalus*	-	-	-	-	-	-	-	-	(1)	-	-	-
Southern Grey Shrike	*Lanius meridionalis*	1	1	A	A	A	A	1	1	1	1	1	1
Woodchat Shrike	*Lanius senator*	-	-	A	A	A	A	-	-	-	-	-	-
CORVIDAE													
Eurasian Jay	*Garrulus glandarius*	-	1	-	-	-	-	-	-	-	-	-	-
Common Raven	*Corvus corax*	-	-	-	-	-	(5)	-	-	-	-	-	-
STURNIDAE													
Common Starling	*Sturnus vulgaris*	D	B	-	-	-	-	-	-	B	C	D	D
Spotless Starling	*Sturnus unicolor*	A	A	A	A	A	A	B	B	A	A	A	A
PASSERIDAE													
Spanish Sparrow	*Passer hispaniolensis*	C	A	A	A	A	A	A	A	A	A	A	C
Eurasian Tree Sparrow	*Passer montanus*	-	-	-	-	-	-	-	-	-	(1)	-	-
Rock Sparrow	*Petronia petronia*	-	-	-	-	-	(8)	-	-	-	-	-	-
FRINGILLIDAE													
Common Chaffinch	*Fringilla coelebs*	A	A	3	A	A	A	A	A	A	A	A	A
European Greenfinch	*Carduelis chloris*	50	A	A	A	A	A	A	A	A	A	A	A
European Goldfinch	*Carduelis carduelis*	-	-	-	-	-	-	-	-	-	(1)	-	-
Common Linnet	*Carduelis cannabina*	5	-	A	-	-	-	-	-	-	A	-	-
European Serin	*Serinus serinus*	B	A	A	A	A	A	A	A	A	A	A	A
Red Crossbill	*Loxia curvirostra*	3	-	-	-	-	-	-	-	-	-	-	-
EMBERIZIDAE													
Corn Bunting	*Emberiza calandra*	-	-	A	A	A	-	-	-	-	-	-	-

Appendix 2. Details of ringed Greater Flamingos *Phoenicopterus roseus* observed at Sebkhet Ariana (SA) and Sejoumi (SS).

Annexe 2. Historique de vie des Flamants roses *Phoenicopterus roseus* bagués vus aux Sebkhet Ariana (SA) et Sejoumi (SS).

Site / Lieu de lecture	Date / Date de lecture	Ring number / Numéro de la bague	Provenance / Origine	Year of ringing / Année de baguage	Number of records / Nombre de lectures	Previous records / Lectures précédentes
SA	29 Jan 2005	FCAD	France - Camargue (Etang du Fangassier) (1)	2003	1	-
	29 Jan 2005	FDFC		2003	1	-
	28 Feb 2005	FDFC		2003	2	Tunisia: Ariana (Jan 05)
	5 Mar 2005	FDZH		2003	6	Tunisia: Nabeul (Feb–Jul 04)
	5 Mar 2005	FFNV		2003	1	-
	5 Mar 2005	FDTV		2003	3	Tunisia: Nabeul (May-Jul 04)
	14 Jun 2014	BHXF		1991	37	France (Aug 91–Jan 98), Spain (Jun 98), France (Aug 00–Oct 01), Spain (May 02–Mar 04), Sardinia (May 05–Jun 05), France (Apr 06–May 10), Algeria (May 11–Jul 11), France (May 13: dead?)
	14 Jun 2014	BAAX		1990	29	France (Aug 90), Sardinia (Dec 91), France (May 95–Apr 02), Spain (Jun 04), France (Feb 05–May 06)
	14 Jun 2014	JXUP		2013	3	Sardinia (Jul 13)
	29 Jan 2005	IZS	Italy (Saline di Comacchio) (2)	2002	13	Italy (Jul 02–Dec. 03), Corsica (Jan 04), France (Jul 04), Italy (Aug 04), Corsica (Nov. 04)
	5 Mar 2005	IABN		2002	3	Spain (Apr 03), Italy (Dec 03)
	14 Jun 2014	MSNZ	Sardinia (Stagio di Macchiareddu) (2)	2006	3	Tunisia : Nabeul (Sep 06), Sfax (Mar 07)
	14 Jun 2014	MZJF		2007	5	Sardinia (Aug 07), Tunisia : Sejoumi (2x Nov 07, Aug 09)
	29 Jan 2005	1/FLB	Spain (Laguna de Fuente di Piedra) (1)	2003	1	-
	5 Mar 2005	1/FZN		2003	1	-
	5 Mar 2005	1/CHC		2002	1	-
	5 Mar 2005	1/BNJ		2002	1	-
	5 Mar 2005	1/FDF		2002	1	-
	15 Mar 2014	2/DPD		2013	Na	Na
	15 Mar 2014	P/3J	Spain (Marismas del Odiel) (1)	2013	Na	Na
SS	15 Mar 2014	JZBP	France - Camargue (Etang du Fangassier) (1)	2013	1	-
	15 Mar 2014	KAAL		2013	2	Tunisia : Nabeul (Oct. 13)
	15 Mar 2014	WDTJ	Sardinia (Stagio di Macchiareddu) (2)	2013	1	-
	15 Mar 2014	WDPT		2013	2	Sardinia (Sep. 13)

Data received from / Données reçues de: (1) Station biologique de la Tour du Valat, France; (2) Istituto Superiore per la Protezione e la Ricerca Ambientale, Italia.
Na = Not available / non disponible.

Incubation and nest-defence behaviour of Streaky-breasted Flufftail *Sarothrura boehmi* in Zambia

Gabriel A. Jamie[a], Collins Moya[b] and Lazaro Hamusikili[b]

Incubation et défense du nid chez le Râle de Böhm *Sarothrura boehmi* en Zambie. Nous présentons les premières observations dans la nature du comportement de nidification du Râle de Böhm *Sarothrura boehmi*. À l'aide d'un piège photographique, un nid contenant quatre œufs a été suivi pendant quatre jours dans la zone de Choma, Zambie du sud. Le mâle couvait presque toute la journée, la femelle en fin d'après-midi ou le soir et pendant la nuit. Au cours de la troisième nuit, le nid fut pillé par un Serpent mangeur d'œufs *Dasypeltis scabra*, qui a mangé tous les œufs. La défense du nid par la femelle en réponse à l'attaque du serpent est décrite, ainsi que le comportement du couple près du nid après la prédation. Des séquences vidéo illustrant les différents comportements ont été postées sur internet (https://www.youtube.com/watch ?v=e7j4kH5Iz4w&feature=youtu.be et suivants).

Summary. We report the first observations from the wild of the nesting behaviour of Streaky-breasted Flufftail *Sarothrura boehmi*. Using a trail camera we monitored a nest containing four eggs over four days in the Choma area of southern Zambia. The male incubated during most daylight hours and the female in the late afternoon / evening and at night. On the third night a Common Egg-eater *Dasypeltis scabra* robbed the nest, eating all of the eggs. We describe the nest defence of the female flufftail in response to the snake's attack, and the birds' behaviour around the nest following predation.

Streaky-breasted Flufftail *Sarothrura boehmi* is an elusive and poorly known inhabitant of seasonally flooded grasslands in central and southern Africa, whose local abundance fluctuates markedly between years in response to rainfall (Taylor & van Perlo 1998). Shortly after periods of heavy rain, the species can suddenly become quite common in suitable habitat and its presence is best detected by the male's deep, repetitive hooting call (Taylor & van Perlo 1998). Very little is known concerning its breeding biology in the wild and all previous observations of the species' social and sexual behaviour refer to captive birds (Taylor & van Perlo 1998, Tarboton 2011). In Zambia the species is considered to be a migrant, with most records in January–March (Dowsett *et al.* 2008).

On 24 February 2015, while conducting bird research at Musumanene Farm in the Choma District of Zambia's Southern Province, GAJ & CM were shown a Streaky-breasted Flufftail nest, found by LH, in a seasonally flooded grassland—a 'dambo'—fringed by miombo woodland (16°47'59.1"S 26°54'15.7"E). The nest was sited near the centre of the dambo (Fig. 1), where the water was *c.*10 cm deep. The nest was constructed from the surrounding, living grass, which had been drawn together to form loose 'walls' on all sides. The grass was gently bent over on top to form a thin 'roof'. The centre of the nest was a smooth, shallow basin of dead grass stems in which were four, all-white eggs (Fig. 2). Their dimensions were not measured; however, these are already well known from both captive and wild birds (Taylor & van Perlo 1998, Tarboton 2011). Nest design is consistent with previous reports (Taylor & van Perlo 1998, Tarboton 2011).

Given how poorly known the breeding biology of Streaky-breasted Flufftail (and most other flufftail species) is in the wild, GAJ & CM decided to deploy a trail camera (a Browning Strike Force camera set to motion-activated mode) to record nesting behaviour. We made a slight partition on one side of the nest and enlarged a pre-existing gap in the grass to provide a clearer view of the nest for the camera, but were careful to minimise disturbance to the surrounding vegetation.

To download camera footage, GAJ & CM returned on 26 February, when four eggs were still present, and again on 28 February, when they found the nest to be empty. These visits were necessary to ensure that the equipment had not been stolen and was functioning properly. The trail camera footage revealed the following.

Nest maintenance and incubation behaviour

The male incubated the eggs for much of the day and changed with the female in the late afternoon / early evening (the switch occurred between 16.34 hrs and 16.39 hrs on 24 February and between

Figure 1. The dambo in which the Streaky-breasted Flufftail *Sarothrura boehmi* nest was found, Choma District, Southern Province, Zambia, February 2015 (Gabriel Jamie)

Le dembo dans lequel se trouvait le nid du Râle de Böhm *Sarothrura boehmi*, District de Choma, Southern Province, Zambie, février 2015 (Gabriel Jamie)

Figure 2. Streaky-breasted Flufftail *Sarothrura boehmi* nest, Choma District, Southern Province, Zambia, 24 February 2015 (Gabriel Jamie). The grass on the near side has been temporarily parted to permit the eggs to be seen.

Nid du Râle de Böhm *Sarothrura boehmi*, District de Choma, Southern Province, Zambie, 24 février 2015 (Gabriel Jamie). L'herbe autour du nid a été temporairement dégagée afin de permettre de voir les œufs.

16.48 and 19.06 hrs on 26 February, with sunset at approximately 18.30 hrs). The female then incubated for the entire night. This matches observations of captive birds (Taylor & van Perlo 1998, Tarboton 2011). The male performed egg rolling once, in which he lifted one egg over the top of the others before letting it rest on the other side of the nest (https://www.youtube.com/watch?v=e7j4kH5Iz4w&feature=youtu.be). The male also performed nest maintenance, pulling at grass beside the nest, and returning with additional grass to line it (https://www.youtube.com/watch?v=cF0SgV227xU&feature=youtu.be). The female was not seen to undertake any of these behaviours.

Nest defence against snake predation

During the night of 26 February, a Common Egg-eater *Dasypeltis scabra* snake visited the nest three times within a period of slightly more than one hour, consuming all of the eggs. The predation event commenced at 19.06 hrs, in response to which the female flufftail adopted a threat posture—hunched forward and raising her wings on either side to present the upper surface

Figure 3. Male Streaky-breasted Flufftail *Sarothrura boehmi* in front of the nest, Choma District, Southern Province, Zambia, 24 February 2015 (Gabriel Jamie & Collins Moya)

Râle de Böhm *Sarothrura boehmi* mâle devant le nid, District de Choma, Southern Province, Zambie, 24 février 2015 (Gabriel Jamie & Collins Moya)

towards the snake, perhaps to make herself look larger. The wings were fanned in and out slightly as the snake moved towards the nest (https://www.youtube.com/watch?v=rG9UWTh7d2E). At 19.09 hrs, the snake could be seen with an egg in its throat before moving away (https://www.youtube.com/watch?v=yjvtEvgzc64). At 19.23 hrs the female flufftail was back on the nest, presumably incubating the remaining eggs.

At 19.35 hrs the snake returned and the female flufftail left the nest. This time the female did not perform any wing-stretching, but attacked the snake, pecking at it vigorously (https://www.youtube.com/watch?v=Pz0OKRmxl10). At 19.54 hrs the female had returned to the nest and there was no sign of the snake.

At 20.12 hrs the snake returned for a third time and the female flufftail again struck the snake with her bill. The flufftail's attacks were even more vigorous than during the snake's second visit.

Adult behaviour at the nest following predation

Both male and female briefly returned to the nest in the morning following the attack, inspected it for *c.*4 minutes (08.28–08.32 hrs) (https://www.youtube.com/watch?v=RhtbZt4fIDE&feature=youtu.be) and then left the area within a few minutes of each other. The camera was left in place until the afternoon of 29 February (2.5 days after the attack), but recorded no further material, suggesting that the nest was abandoned.

Vocalisations around nest

We heard Streaky-breasted Flufftail singing close to the nest when we visited the site on 24 and 26 February. On both occasions, the low hoots were only repeated a few times and were perhaps made by the male who had been disturbed while incubating by our arrival. When GAJ removed the camera on 29 February, he heard a Streaky-breasted Flufftail giving the full song, consisting of a long series of low hoots, from an area nearby (although it is notoriously difficult for a single observer to judge their distance from a calling flufftail). It is possible that this was the same male recorded by the trail camera and which was now either advertising again for a female or re-establishing its territory.

In captivity, male Streaky-breasted Flufftails are known to continue singing even after incubation has commenced (Taylor & van Perlo 1998); it is therefore unsurprising that partial song was heard during the incubation period in the wild.

Discussion

The flufftail bred in a good year for the species locally. GAJ had not heard Streaky-breasted Flufftail vocalising at the site on either of his two previous field seasons there in the rains, whereas in 2015 several individuals were also heard in adjacent dambos.

To our knowledge, this is the first time that wing-stretch posturing and active attacks in response to a nest predator have been reported by flufftails (or potentially any other rallid). In Taylor

& van Perlo (1998) the only responses listed from rallids to terrestrial predators are jumping, escape and silent following of the threat. That the snake was predating the flufftail's eggs rather than the birds may have meant that, rather than escaping, the flufftail was able to risk attacking the snake without placing itself in danger. Additionally this snake species is unlikely to present any danger to the flufftail as it is non-venomous and feeds exclusively on eggs (Spawls *et al.* 2004).

In general, observations of this pair are consistent with findings from captive birds concerning incubation (male by day, female at night) and nest maintenance / construction (male-only) behaviour (Taylor & van Perlo 1998, Taylor & Kirwan 2013).

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[a] *Department of Zoology, University of Cambridge, Downing Street, Cambridge CB2 3EJ, UK. E-mail: gaj29@cam.ac.uk*

[b] *Musumanene Farm, PO Box 630303, Choma, Zambia.*

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Photographic evidence for the occurrence of frigatebirds *Fregata* sp. in the Gulf of Guinea

Estrela Matilde[a] *and Ricardo F. Lima*[b]

Preuve photographique de la présence de frégates *Fregata* sp. dans le Golfe de Guinée. Le 1er août 2015, une frégate immature a été photographiée près de l'île de Mosteiros, Príncipe. La forme et l'étendue du blanc sur les parties inférieures indiquent qu'il s'agissait d'une Frégate superbe *Fregata magnificens*. C'est la première preuve photographique de la présence d'une frégate dans le Golfe de Guinée.

On 1 August 2015, we photographed a frigatebird *Fregata* sp. (Figs. 1–2) near Mosteiros (01°41'N 07°28'E), a rocky 1-ha islet, 800 m north-east of Príncipe Island (Fig. 3). The white head and the pattern and extent of the white area on the underparts, extending to the underwings, indicate that it was an immature, but specific identification of frigatebirds in post-juvenile plumages can be problematic, with some Magnificent Frigatebirds at this age virtually indistinguishable from immature Great *F. minor* and Lesser Frigatebirds *F. ariel* without good photographs (Howell *et al.* 2014).

Only Magnificent Frigatebird has been definitely recorded in West African waters (Borrow & Demey 2014). Ascension Frigatebird *F. aquila* was considered a possible vagrant to the Gulf of Guinea (Brown *et al.* 1982), but there is no proof of this, as the historical records of frigatebirds from the Gulf of Guinea pre-date its recognition as a separate species (Jones & Tye 2006). No frigatebird species is mentioned on the ABC checklist of Príncipe (Dowsett *et al.* 2015), although there are two recent observations, involving at least four individuals over the Tinhosas islets, south-west of Príncipe, in August 1991, and two immatures between São Tomé and Príncipe in March 1992 (Jones & Tye 2006). None was identified to species, but it has been suggested that they are more likely to have been

Figures 1–2. Immature frigatebird *Fregata* sp., near Mosteiros Islet, Príncipe, 1 August 2015 (Estrela Matilde). The shape and extent of the white area on the underparts are suggestive of a Magnificent Frigatebird *F. magnificens*.

Frégate immature *Fregata* sp., près de l'île de Mosteiros, Príncipe, 1er août 2015 (Estrela Matilde). La forme et l'étendue du blanc sur les parties inférieures suggèrent qu'il s'agit d'une Frégate superbe *F. magnificens*.

Figure 3. **(a)** Location of Príncipe Island and **(b)** Mosteiros Islet.

(a) Situation de Príncipe et de **(b)** l'île de Mosteiros.

Magnificent Frigatebirds that had wandered from the western Atlantic than Ascension Frigatebirds (Jones & Tye 2006).

Ascension Island and the Cape Verdes are the only locations known to hold breeding populations of frigatebirds in the eastern Atlantic (Orta *et al.* 2014). Although immature plumages of Ascension Frigatebird appear to be inadequately known (S. N. G. Howell *in litt.* 2015), a partial or complete brown breast-band always seems to be present (Harrison 1983, Orta *et al.* 2014); if this is correct, the Mosteiros bird could not have been this species.

Lesser Frigatebird is a relatively small and light-bodied frigatebird, being appreciably smaller than Magnificent Frigatebird, although this can be difficult to judge in a lone bird (Howell *et al.* 2014). Immature Lesser Frigatebirds have a large white patch on the underparts, usually with 'untidy' white spurs, a tapered rear edge and, occasionally, a dusky collar (Howell *et al.* 2014). Lesser Frigatebird ranges from the Indian Ocean through the tropical west and central Pacific, with a small, endangered population in the South Atlantic off Brazil, which is considered mostly sedentary (Howell *et al.* 2014), making occurrence in the Gulf of Guinea unlikely.

In immature Great Frigatebirds the white belly patch is either rounded or tapered at the rear, whereas in Magnificent Frigatebirds it is always tapered, with a steep angle of black on the flanks (shallower in Magnificent) resulting in a narrower belly patch, as in the bird we photographed. Great Frigatebird ranges from the Indian Ocean through the tropical Pacific, and also breeds in the South Atlantic off Brazil, with no transatlantic movements recorded (Howell *et al.* 2014), which again makes it unlikely that the bird we observed was this species.

Magnificent Frigatebird at least formerly bred on the Cape Verdes and is a rare visitor to West African seas (BirdLife International & NatureServe 2014). The Cape Verde population

is now probably functionally extinct (López-Suárez *et al.* 2012) and therefore an unlikely source for vagrants. The occasional occurrence of Magnificent Frigatebirds in the Azores, Madeira and the Canary Islands, for example, has been attributed to transatlantic movements rather than to stray individuals from the Cape Verdes (Garcia-del-Rey 2011, López-Suárez *et al.* 2012), and the same might be true for the bird we observed.

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[a] *Príncipe Trust Foundation, Príncipe Island, Democratic Republic of São Tomé and Príncipe. E-mail: estrela237852@gmail.com*

[b] *Centre for Ecology, Evolution and Environmental Changes (Ce3C), Faculdade de Ciências, Universidade de Lisboa, Lisbon, Portugal; and Associação Monte Pico, Monte Café, São Tomé Island, Democratic Republic of São Tomé and Príncipe.*

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Red-necked Falcon *Falco chicquera* in Angola

Michael S. L. Mills[a,b], Bruce Bennett[c], Ninda Baptista[d] and Pedro Vaz Pinto[d,e]

Falcão-de-nuca-vermelha *Falco chicquera* em Angola. O falcão-de-nuca-vermelha *Falco chicquera* ocorre em todo o norte da Namíbia até à fronteira com Angola, mas até agora não havia registros confirmados para Angola. Apresentamos os primeiros avistamentos, registros de nidificação e fotografias da espécie no Parque Nacional do Iona, no sudoeste do país, imediatamente a norte da fronteira com a Namíbia. Esta espécie pode agora ser incondicionalmente aceite na lista de aves de Angola.

Red-necked Falcon *Falco chicquera* has not been recorded with certainty from Angola (Traylor 1963, Pinto 1983, Dean 2000, Mills & Melo 2013), *contra* BirdLife International (2015), which maps the species as occurring almost throughout the country. The only report for Angola is from Bom Jesus on the Kwanza River near Luanda (09°09'52"S 13°33'54"E; Érard & Etchécopar 1970), more than 850 km distant from any confirmed records; it was mapped by Brown *et al.* (1982) as the only record for Angola, but was considered to require confirmation by Dean (2000). However, given that the species' range extends right up to the Angolan border throughout northern Namibia (Jenkins 2005), Red-necked Falcon was predicted to occur in palm savannas and floodplains in the far south-east (Dean 2000) and extreme south of the country (Mills & Melo 2013).

While stationed at Espinheira (16°47'10"S 12°21'30"E) in Iona National Park, in far south-west Angola, BB first noticed the presence of Red-necked Falcon in the surrounding arid savanna/semi-desert (Fig. 1) in October 2013. BB was unaware of the significance of his observations, and did not report them, but he has since recorded Red-necked Falcons at least 30 times in the park, strongly suggesting that the species is resident in the area and not just a vagrant. In addition, he observed birds nesting during 2013 and 2014 in the same *Acacia erioloba* (a genus of tree frequently used for nesting; Jenkins 2005), 12 km south-west of Espinheira at 16°49'10"S 12°15'27"E, and <50 km north of the Namibian border.

In May 2015 PVP & NB visited Iona National Park and photographed a Red-necked Falcon. It was distinguished from all other falcons by its extensive chestnut crown and nape, well-barred grey back, heavily barred flanks, belly and vent, and plain, pale breast (Figs. 2–4). Based on range and habitat, the subspecies here is *horsbrughi*, although this taxon is indistinguishable by plumage from *ruficollis*, which is reported to differ only by being slightly smaller (Brown *et al.* 1982, Jenkins 2005). We present these photographs as evidence for the occurrence of Red-necked Falcon in Angola.

Figure 1. Typical semi-desert/arid savanna landscape of Iona National Park, Namibe Province, Angola, May 2015 (Pedro Vaz Pinto)

Figura 1. Típica paisagem semi-desértica/savana árida no Parque Nacional do Iona, Província do Namibe, Angola, maio de 2015 (Pedro Vaz Pinto)

Figures 2–4. Red-necked Falcon *Falco chicquera*, Iona National Park, Namibe Province, Angola, 5 May 2015 (Pedro Vaz Pinto)

Figuras 2–4. Falcão-de-nuca-vermelha *Falco chicquera*, no Parque Nacional da Iona, província do Namibe, Angola, 5 de maio de 2015 (Pedro Vaz Pinto)

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[a] *A. P. Leventis Ornithological Research Institute, University of Jos, PO Box 13404, Jos, Plateau State, Nigeria. E-mail: michael@birdingafrica.com*

[b] *DST / NRF Centre of Excellence at the Percy FitzPatrick Institute of African Ornithology, University of Cape Town, Rondebosch 7701, South Africa.*

[c] *Espinheira, Iona National Park, Namibe, Angola.*

[d] *ISCED (Instituto Superior de Ciências da Educação da Huíla), Rua Sarmento Rodrigues, Lubango, Angola.*

[e] *Kissama Foundation, Rua Joaquim Capango n°49, 1°D, Luanda, Angola.*

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First documented record of Red-necked Stint *Calidris ruficollis* for Mozambique

Gary Allport

Première mention documentée du Bécasseau à cou roux *Calidris ruficollis* pour le Mozambique. Le 9 septembre 2015, un Bécasseau à cou roux *Calidris ruficollis* muant en plumage internuptial a été photographié sur une petite zone humide temporaire dans une banlieue de Maputo, Mozambique. L'oiseau est resté sur le site jusqu'au 28 septembre. Il s'agit de la première donnée pour le pays, une mention de 1977 ayant été retirée par l'observateur. L'espèce niche principalement en Sibérie du nord et hiverne de l'Asie du Sud-Est jusqu'en Australie et la Nouvelle Zélande ; en Afrique, des occasionnels ont précédemment été observés en Somalie, au Kenya et en Afrique du Sud.

On 9 September 2015, I visited a small temporal wetland in the Triunfo suburb of Maputo, Mozambique (25°54'43"S 32°37'55"E). The site held some waders, including several Little Stints *Calidris minuta*, most of which were in summer plumage, and a single stint in mostly winter plumage that appeared relatively bull-necked, was shorter legged and had a noticeably horizontal carriage. It remained separate, often feeding alone, and was quite approachable, permitting me to take a series of photographs, some of which I shared subsequently with D. Bakewell, who identified the bird as a Red-necked Stint *C. ruficollis*. The following morning I found it again and took additional photographs, which I posted on the SA Rare Birds Facebook page, whereupon several birders confirmed the identification. The stint remained at the site intermittently until at least 28 September.

Description

Very similar to a winter-plumaged Little Stint, some of which were present for direct comparison, but noticeably larger headed, bull-necked and tending to carry its head lower, 'in front' rather than 'on top of' its body (Figs. 1–2). Although the body plumage was often fluffed up, it still appeared longer bodied and flatter backed, an impression enhanced by a tendency to carry itself more horizontally than Little Stints. Close inspection revealed the tarsus to be shorter than that of Little Stint, the short-legged impression being enhanced by shorter visible tibia (Fig. 3). Bill shorter than most Little Stints: *c.*70% of the >20 Little Stints present had a longer bill and none had a shorter bill. The bill looked more tubular from some angles, but showed a slight vertical narrowing of the maxilla and mandible near the tip. Corresponding lateral broadening

Figure 1. Adult Red-necked Stint *Calidris ruficollis* moulting into winter plumage, Maputo, Mozambique, 13 September 2015 (Johan Grobbelaar)

Bécasseau à cou roux *Calidris ruficollis* adulte muant en plumage internuptial, Maputo, Mozambique, 13 septembre 2015 (Johan Grobbelaar)

Figure 2. Red-necked Stint *Calidris ruficollis* (left) and Little Stint *C. minuta*, Maputo, Mozambique, 15 September 2015 (Gary Allport)

Bécasseau à cou roux *Calidris ruficollis* (à gauche) et Bécasseau minute *C. minuta*, Maputo, Mozambique, 15 septembre 2015 (Gary Allport)

Figure 3. Red-necked Stint *Calidris ruficollis* (left) with four Little Stints *C. minuta*, Maputo, Mozambique, 12 September 2015; compare leg length (Gary Allport)

Bécasseau à cou roux *Calidris ruficollis* (à gauche) avec quatre Bécasseaux minutes *C. minuta*, Maputo, Mozambique, 12 septembre 2015 ; comparer la longueur des pattes (Gary Allport)

Figure 4. Extended right wing of Red-necked Stint *Calidris ruficollis*, Maputo, Mozambique, 13 September 2015 (Lizet Grobbelaar)

Aile droite étendue du Bécasseau à cou roux *Calidris ruficollis*, Maputo, Mozambique, 13 septembre 2015 (Lizet Grobbelaar)

Figure 5. Left wing of Red-necked Stint *Calidris ruficollis*, Maputo, Mozambique, 15 September 2015 (Niall Perrins)

Aile gauche du Bécasseau à cou roux *Calidris ruficollis*, Maputo, Mozambique, 15 septembre 2015 (Niall Perrins)

of the tip produced a slight 'blob' effect when head on.

Plumage was very similar to winter plumage of Little Stint, but the unmoulted lesser coverts were noticeably uniform, showing no pre-breeding feathers with the black centres and ginger fringes that would be expected in a Little Stint and were shown by all five adult Little Stints that I was able to photograph alongside the bird (Figs. 4–5).

Mantle and scapulars varied in tone according to the light. On cloudy days with even light the feathers appeared pale grey with a clean narrow black shaft-streak (Fig. 1). On sunny days and in strong light they sometimes appeared slightly browner with a narrow darker suffusion parallel to the feather shaft (Fig. 5; see also video at https://vimeo.com/140647462).

Vocalisations

I saw and heard the bird call three times. Twice it uttered a single short *preer* or *tiir*, not dissimilar to the *chit* or *pit* of a Little Stint, but lower in tone, more prolonged, slightly disyllabic and with a definite rolling or trilling quality. It reminded me of the call of a Dunlin *C. alpina*. When interacting with Little Stints on 15 September it repeatedly gave a series of chirruping trills *tereet-tereet-terreer*, apparently in aggression.

Identification

The body structure characters first noted by Sinclair & Nicholls (1976) and expanded upon by Bakewell (2014), were well illustrated by this bird. It was most noticeably different from Little Stints when feeding alongside them, especially early in the morning when it always looked bull-necked

and long-bodied (see video). These characters were still visible in the heat of the day, but the bird was then rarely seen alongside other stints as it often became more aggressive.

The bill was indeterminate, within the range for either species, but the shorter legs were very apparent at times. This clearly is an excellent feature (see Round *et al.* 2012), especially if other stints are present. Note that the exposed tibia is important, not just the tarsus.

Body, bill and leg structure are all good characters, especially for initial detection of birds that do not show distinctive plumage, but call appears to be a useful feature too. Earlier accounts of the calls of Little and Red-necked Stints (e.g. Hayman *et al.* 1986) note the differences, but suggest that Little Stint is able to produce a wider range of calls. This may be the case on the breeding grounds, but some more recent texts underline their usefulness at other seasons too (Veit & Jonsson 1987, Harris *et al.* 1989, 1996, Lewington *et al.* 1991). Little Stint utters a short, abrupt, high-pitched *chit*, *tit*, *stit* or *seet* and a tinkling *tililil*, whereas Red-necked Stint produces a slightly deeper, rolling *tirriw*, *kreet*, *kreep*, *chreek*, *klyt*, *prip*, *prleep*, *churk* and a *tirriw-chit-chit*, *hwit-hwit-hwit*. Note that Sinclair & Nicholls (1976) were amongst the first to flag this very useful character. The bird in Maputo was identifiable on this character alone, especially when aggressively interacting with Little Stints.

Finally, the plain 'winter' greyish lesser coverts were consistent with Red-necked Stint, although it is still unclear if Little Stint always shows 'summer' black and ginger-fringed lesser coverts at this season.

Mozambique records

There was one previous record of Red-necked Stint in Mozambique of a bird that spent the (austral) summer of 1977 on the beach at Costa do Sol, Maputo (Hockey *et al.* 1986), but this record has now been withdrawn by the observer (A. Vittery *in litt.* 2015). The original material relating to the record, which was probably held by the Southern African Rarities Committee, has unfortunately been lost. The record reported here thus becomes the first authenticated record of Red-necked Stint for the country.

Range and status in Africa

Red-necked Stint breeds mainly in northern Siberia and winters from South-East Asia to Australia and New Zealand (van Gils & Wiersma 1996). It is probably an annual visitor to the African continent in small numbers, with records in Somalia (Ash & Miskell 1998), Kenya (Finch & Turner 1989) and South Africa (Hockey *et al.* 2005). The first South African record was made in Durban, KwaZulu-Natal, in November 1963 and there were 26 confirmed records up to 1994, most from the Durban area and Berg River estuary, Western Cape, spanning August–April, with the majority in October. Most records are of birds in partial or full breeding plumage, when confusion with Little Stint is less likely (Hockey *et al.* 2005).

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BirdLife International, The David Attenborough Building, Pembroke Street, Cambridge, CB2 3QZ, UK. E-mail: Gary.Allport@birdlife.org

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Swifts *Apus* sp. and Common House Martins *Delichon urbicum* on St. Helena, South Atlantic, in 2012–13

J. C. Hillman[a], S. M. Hillman[a], Gavin Ellick[a], Kevin George[a], David Higgins[b], Philip Lambdon[c] and Annalea Beard[b]

Martinets *Apus* sp. et Hirondelles de fenêtre *Delichon urbicum* sur l'île de Sainte-Hélène, Atlantique Sud. Quatre mentions de martinets non-identifiés *Apus* sp. sur Sainte-Hélène en 2012–13 sont présentées, ainsi qu'une observation de 2–3 Hirondelles de fenêtre *Delichon urbicum*. Toutes les observations ont été réalisées pendant l'été austral, en novembre–janvier. Il s'agit des premières données confirmées de ces espèces pour l'île.

St. Helena lies in the South Atlantic between Africa and South America, at the same latitude as the Angola–Namibia border (15°57'54.95"S 05°42'27.72"W; Fig. 1). It does not lie on any known landbird migration route and there are no regular movements of landbirds to and from the island. Vagrant landbirds are rare due to the distances from any mainland or other large islands.

There are few records of 'swallow-like' birds, which have rarely been specifically identified, due to the sightings being brief and observers often lacking in experience and knowledge. Past records for the island are summarised by Rowlands *et al.* (1998). There are mentions of 'swifts', but no confirmed records. Haydock (1954) was informed about flocks of small, fast-flying, black birds appearing over Jamestown in October or November, but never staying for more than one day at a time. Memorable influxes were noted in 1941, 1945 and 1948. Haydock recorded 'swifts' on 8 October 1952–6 January 1953, which were presumed to be Common Swifts *Apus apus*. There are also a few mentions of 'swallows', even to species level as 'European Swallow' *Hirundo rustica*, from 1845, 1871, 1957 and 1980.

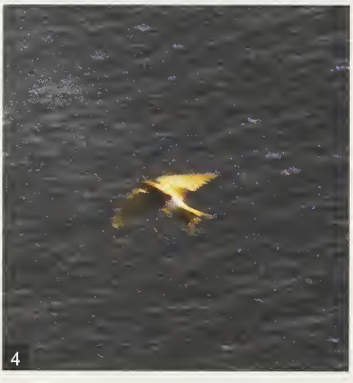
In 2012–13, swifts and hirundines were noted both years in the Southern Hemisphere's midsummer, in November–January. In one case, species-level identification supported by photographs was possible, aided by the discovery

Figure 1. St. Helena Island showing localities mentioned in the text (inset: St. Helena Island in relation to Africa and South America—Wikimedia Commons)

L'île de Sainte-Hélène avec les localités mentionnées dans le texte (encart: Sainte-Hélène par rapport à l'Afrique et l'Amérique du Sud—Wikimedia Commons)

Figures 2–3. Swift / martinet *Apus* sp., Man and Horse, St. Helena, 29 January 2012 (Chris & Sheila Hillman)

Figures 4–6. Common House Martin / Hirondelle de fenêtre *Delichon urbicum*, Munden's Cliffs, St. Helena, 19–20 November 2013 (David Higgins)



of a corpse, but in the others the species could not be determined, despite photographs being available.

1. Swifts *Apus* sp. at Man and Horse, January 2012

On 29 January 2012, around midday, two large swifts were observed for at least 20 minutes in the Man and Horse area, over the West Point Signal Station ruins (15°59'36.728"S 05°46'50.159"W) by JCH & SMH (Figs. 2–3). The birds were hawking for insects 2–15 m above the grasslands. They were all dark, ashy black, the primaries appearing paler, possibly due to the light as they were mainly seen against the sky on a bright sunny day. The wings were long, narrow and sickle-shaped—typical for a swift. Wingspan was estimated at *c.*30 cm. The tail had a shallow fork when spread. The birds did not call, the only sounds being that made by their wings as they flew close to the observers.

The photographs were sent to experts in South Africa and the UK. Positive identification proved impossible. Common Swift *Apus apus* or African Black Swift *A. barbatus* are both possible. *A. apus* is considered to be the most likely, given the large numbers that move between Europe and southern Africa, and the species occurs in many mainland African countries en route between the two on migration. *A. barbatus* undertakes some local movements, but breeds in the Southern Hemisphere summer.

Figure 7. Common House Martin *Delichon urbicum* carcass, Munden's Cliffs, St. Helena, 5 December 2013 (Phil Lambdon)

Hirondelle de fenêtre *Delichon urbicum* morte, Munden's Cliffs, Sainte-Hélène, 5 décembre 2013 (Phil Lambdon)

2. Swift *Apus* sp. at Man and Horse, November 2012

A swift was briefly seen under very misty and wet conditions by JCH & SMH on 23 November 2012 at *c.*07.30 hrs. No photographs could be taken. One was briefly seen again on 29 November at the same location in the early morning by GE. All three observers were agreed that the bird appeared paler below. JCH & SMH felt that the jizz was different from the two seen ten months previously.

3. Swift *Apus* sp. at South West Point, December 2013

A swift was observed at South West Point near the Signal Station on 19 December 2013 at 14.30 hrs by KG and A. Bennett. The bird appeared paler below, but not white, flying very fast, diving from on high, then flying closer to the ground and soaring upwards again. No photographs were obtained.

4. Common House Martins *Delichon urbicum* at Munden's Cliffs, November 2013

Two, possibly three, Common House Martins *Delichon urbicum* were photographed by DH, hawking for insects over the sea and Munden's Cliffs on 19, 20 and 22 November 2013 at 16.30–18.00 hrs (Figs. 4–6). The birds flew in a loop between Jamestown and Rupert's Valley via Munden's Battery, covering *c.*1 km on a full pass, with shorter flights in between. Rapid changes in direction were highly suggestive of foraging behaviour. Weather conditions were good, with few clouds and light winds.

On 5 December 2013, a dead Common House Martin, presumably one of the same birds, was found by PL below the cliffs at the same location (15°55'00.515"S 05°43'00.004"W; Fig. 7). From the extensive buff fringes to the flight and rump feathers, it was presumed to be a first-year bird. The corpse was not particularly emaciated and a minor abrasion on one side of the head suggested that it had died in a collision.

Discussion

It is of interest to note that the House Martins were in the same location (Jamestown) as the 'flocks of small, fast flying, black birds that appeared over Jamestown in October or November' in 1941, 1945 and 1948 (Haydock 1954). The capital Jamestown has a constant human presence and additional occurrences in all likelihood would have been noted. The Man and Horse location was probably little visited in the same period, being distant from Jamestown. Periodic appearances of swifts at that site for very short periods might well have been overlooked in the past. Rowlands *et al.* (1998) suggest that the 'small black swallow' (Melliss 1870) seen about the cliffs at Ladder Hill, above Jamestown, may have been a case of mistaken identity—possibly a storm-petrel.

It is presumed that vagrants reach the island either from the coast of mainland Africa, or possibly from Ascension Island to the north, having been deflected from their intended route by adverse weather. Ascension has records of Barn Swallow *Hirundo rustica*, Common Swift and Common House Martin as vagrants (Ascension Government Heritage 2015). St. Helena lies in the path of the constant south-east trade winds, which could deflect northbound migrants out to sea, or prevent southbound birds already blown out to sea from reaching the African continent. There have been an increasing number of sightings of vagrant bird species over the years, none of which has appeared on the island regularly. All of the records have been in the Southern Hemisphere summer, in November–January. Most have been Eurasian or African species, but at least two could have been

from the Americas (St Helena National Trust photographic records of American Golden Plover *Pluvialis dominica* and Comb Duck *Sarkidiornis melanotos*). Previous historical records are from October–February, together with two 'swallow' records in June and July (Melliss 1875, Wahlberg in Craig & Hummel 1993).

Acknowledgements

Grateful thanks are due to Neil McCulloch for reviewing this note and making a number of suggestions that improved the text.

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[a] *St. Helena National Trust, Broadway House, Main Street, Jamestown, St. Helena Island STHL 1ZZ, South Atlantic. E-mails: hillman.jesse@gmail.com; Councillor.Ellick@Helanta.co.sh; wirebirdmngr@shnt.org.uk*

[b] *Environmental Management Division, Environment and Natural Resources Directorate, St. Helena Government, Essex House, Jamestown, St. Helena Island, STHL 1ZZ. E-mail: marine@enrd.gov.sh*

[c] *c/o St. Helena National Trust. E-mail: plambdon@gmail.com*

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Photospot:

Infanticide in the Secretary-bird *Sagittarius serpentarius* in Tanzania

Joseph Morlan[a] *and Susan Scott*[b]

Infanticide chez le Messager sagittaire *Sagittarius serpentarius* en Tanzanie. Un incident d'infanticide et de cannibalisme dans le Messager sagittaire *Sagittarius serpentarius* est documenté avec des photos. À Ndutu, Ngorongoro Conservation Area, Arusha, Tanzanie, un adulte a été observé tuant et mangeant deux poussins sur le nid. Les raisons possibles de ce comportement sont examinées.

Observations of infanticide and cannibalism in birds are rare, although possibly under-reported (Moreno 2012) and especially unusual in diurnal raptors (Korňan & Metod 2011). On 11 July 2013, while on a birding safari at Ndutu, Ngorongoro Conservation Area, Arusha Region, Tanzania, we stopped to observe a Secretary-bird *Sagittarius serpentarius* on a large platform nest sited atop a flat-topped *Acacia c.*10 m high. At 08.40 hrs, we were astonished to see the adult reach into the nest and quickly pull out and devour a small white fluff-ball, which we suspected was a chick. Within two minutes we observed the adult reach down into the nest a second time and pull out another fluff-ball, which it quickly consumed. SS was able to obtain a series of photographs, which confirmed the fluff-balls were chicks (Figs. 1–5). Comparison with published photographs of Secretary-bird chicks (Kemp *et al.* 2014) revealed a good match. Both chicks were covered in white down and had yellow facial skin at the base of their bills (Fig. 6). We believe they were less than one week old, because after seven days a new layer of grey down is acquired and the facial skin turns orange (Hockey *et al.* 2005).

There are several possible explanations for this behaviour. This species is known to be a nest-robber, so perhaps this was an unguarded active nest belonging to another pair. Another possibility is that the chicks were either close to death or already dead. Secretary-birds are reported to be facultatively fratricidal, with the youngest of three chicks in the nest typically dying of starvation (Brown *et al.* 1982). However, we observed at least two chicks being consumed and no remaining live chicks were visible. Thus we believe this was not a case of normal brood reduction such as documented in Golden Eagle *Aquila chrysaetos* or American Kestrel *Falco sparverius* (Bortolotti *et al.* 1991) where younger chicks may be fed to older siblings (Korňan & Metod 2011) usually during periods of low food supply. In our case rainfall during the 2013 wet season in the Ndutu area was about average (data at http://www.ndutu.com/seasons/) with abundant flowering *Gutenbergia.* Years like this typically witness plentiful insects and rodents, so there is no specific reason to expect this behaviour was precipitated by food stress to the adult or starvation of chicks.

Another explanation offered by S. Thomsett (*in litt.* 2013) is that this was infanticide by a replacement adult. Under this scenario, the behaviour would be termed hetero-cannibalism in which the victim is an unrelated conspecific. Thomsett documented the behaviour of a replacement adult Secretary-bird towards a much larger chick at Soysambu Conservancy in Kenya, and photographed a Secretary-bird trying to kill a single large nestling on 28 February 2012. 'Only after observing the nest for a few days and noticing just one adult attended did we see odd behaviour of the interloper. I then checked a nearby water tank to see the dead adult.... The chick survived only because we rescued it. The new adult was persistent in its effort to kill the chick. The single parent was never in a position to defend the chick. I never found out the sex of the adults.'

Infanticide is not uncommon in other animals when a new male replaces a male that has died or been driven off. This has two potential benefits to the new male: it may stimulate the female to resume ovulating and it may ensure that the new male does not invest energy rearing young that are not his own. Cases are particularly well documented in the African Lion *Panthera leo* (Pusey & Packer 1994), but infanticide and cannibalism by a

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Figures 1–5. Chick being killed and consumed by adult Secretary-bird *Sagittarius serpentarius* on the nest, Ndutu, Ngorongoro Conservation Area, Arusha Region, Tanzania, 11 July 2013 (Susan Scott). Close examination of the original high-resolution images reveals white spotting on the black thigh feathers and a mixture of worn brownish feathers being replaced by fresh grey plumage on the bird's body and wing-coverts. Although this adult has developed its blue-grey bill and dark brown eyes, these plumage features suggest it may be a young adult which could be a replacement or an intruder trying to acquire a territory or a mate.

Un poussin est tué et mangé par un Messager sagittaire *Sagittarius serpentarius* adulte sur le nid, Ndutu, Ngorongoro Conservation Area, Arusha, Tanzanie, 11 juillet 2013 (Susan Scott). L'examen minutieux des photos originales à haute résolution révèle des taches blanches sur les plumes noires des tibias et un mélange de plumes brunâtres usées en train d'être remplacées par un nouveau plumage gris sur le corps et les couvertures alaires de l'oiseau. Malgré le fait que cet individu ait acquis un bec bleu-gris et des yeux brun foncé, ces caractéristiques suggèrent qu'il pourrait être un jeune adulte. Il s'agit peut-être d'un remplaçant ou d'un intrus qui tente d'acquérir un territoire ou un partenaire.

young male Bald Eagle *Haliaeetus leucocephalus* apparently attempting mate replacement has been demonstrated (Markham & Watts 2007). Replacement females could also benefit by not investing in young that are not their own as they gain a 'pre-made' nest. Like Thomsett, we were unable to determine the sex of the adult Secretary-bird we observed.

We also cannot eliminate the possibility of filial cannibalism. Filial infanticide occurs when a parent kills its own offspring. When this also involves consumption of the young, it is termed filial cannibalism. Such behaviour is particularly well known in certain fish and has been documented in some bird species such as House Finch *Haemorhous mexicanus* (Gilbert *et al.* 2005). The adaptive function of this behaviour remains speculative. It may divert energy and nutrients from current reproduction to enhance future reproductive success. It perhaps selectively eliminates poorer quality offspring, or in the case of infanticide by males it may remove young of uncertain paternity (Klug & Bonsall 2007).

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Figure 6. Detail of chick cropped from Figure 3. Note chick's yellow facial skin and white down indicating a recent hatchling (Susan Scott)

Détail du poussin (une coupe de la Figure 3). Noter la peau faciale jaune et le duvet blanc du poussin, indiquant qu'il s'agit d'un oiseau récemment éclos (Susan Scott)

trip for their feedback and for making the trip possible, and Chris Spooner who encouraged us to publish our observations. Rob Bijlsma, Alan Kemp and Jean-Marc Thiollay provided constructive comments on the submitted manuscript.

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[a] *1359 Solano Drive, Pacifica, California 94044, USA. E-mail: jmorlan@ccsf.edu*

[b] *4855 Cameron Ranch Drive, Carmichael, California 95608, USA. E-mail: calidris@surewest.net*

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Recent Reports

These are largely unconfirmed records published for interest only; **records are mostly from 2015, with a few from earlier dates**. We thank all birders who have sent in their records and urge them to submit full details to the relevant national or regional organisations. It is suggested that observations of each species be compared with relevant literature to set new data in context and that observers who are unfamiliar with the status of birds in a particular country refer to the ABC country checklists (www.africanbirdclub.org/countries/checklists/index.html) or more recent or appropriate sources before submitting records.

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Les observations ci-après sont en majeure partie non confirmées et sont publiées uniquement dans le but d'informer. **La plupart des données sont de 2015 ; quelques-unes sont plus anciennes**. Nous remercions tous les ornithologues qui ont pris la peine de nous faire parvenir leurs données et nous recommandons de les envoyer, dûment documentées, aux organisations nationales ou régionales concernées. Il est conseillé de vérifier le statut des espèces observées dans la littérature appropriée, afin de mettre les nouvelles données en perspective, et de consulter notamment les 'checklists' des pays africains du ABC (www.africanbirdclub.org/countries/checklists/index.html) ou des sources plus récentes ou appropriées.

Angola

An **African Green Pigeon** *Treron calvus* was photographed on an oil platform 80 km off the Angolan coast on 7 September 2015 (*MF* per *WM*; Fig. 1)

Figure 1. African Green Pigeon / Colombar à front nu *Treron calvus*, 80 km off the Angolan coast, 7 September 2015 (Mark Frazier)

Azores

The following records are from late May–December 2015. No fewer than seven species were reported for the first time in the archipelago: **Whooper Swan** *Cygnus cygnus* (an adult at Lagoa das Furnas, São Miguel, from 26 November until at least 15 December), **Ortolan Bunting** *Emberiza hortulana* (two at Azenha, Santa Maria, on 28 May), **Eastern Wood Pewee** *Contopus virens* (two on Corvo between 18 and 24 October), **Ruby-crowned Kinglet** *Regulus calendula* (one on Corvo on 31 October–1 November), **Arctic Warbler** *Phylloscopus borealis* (one on Corvo on 3–5 October), **Wood Warbler** *P. sibilatrix* (one on Corvo on 3–12 October) and **Veery** *Catharus fuscescens* (one on Corvo on 15–20 October).

Other noteworthy records include the following. A **Snow Goose** *Chen caerulescens* was observed at Fazenda das Lajes, Flores, on 29 December. **Common Shelducks** *Tadorna tadorna* were reported from Faial (one on 20 November), São Miguel (up to two on 17 November–10 December) and Terceira (one on 9–18 December). A **Long-tailed Duck** *Clangula hyemalis*, first seen on Faial on 30 December 2014, was last reported on 6 June. Single **American Black Ducks** *Anas rubripes* were observed on Terceira on 17–24 October and 7–28 December, and on Flores on 14–16 October. A male **Wood Duck** *Aix sponsa* was on Flores from late September until late October. Single **Green-winged Teals** *Anas* (*crecca*) *carolinensis* were on Terceira from 10 October onwards and on São Miguel on 3–20 October. A **Gadwall** *Mareca strepera* was on Terceira on 11 October. **Greater Scaups** *Aythya marila* were on Corvo (one on 7 October), Terceira (up to two, from 13 October onwards) and São Miguel (one on 29 October–11 November), whilst up to four **Lesser Scaups** *A. affinis* stayed on Terceira from 6 December onwards. Single female **Red-breasted Mergansers** *Mergus serrator* were reported from Faial on 30 October and Terceira on 26–30 December. Two **Hooded Mergansers** *M. cuculatus* were claimed from São Jorge on 23 November. On São Miguel, a **Pied-billed Grebe** *Podilymbus podiceps*, seen again on 29 May, stayed until at least late October, with a second throughout October; thereafter, a single was seen on 26–28 November and 8 December, and one was found on Flores on 17 November. The fourth **Sora** *Porzana carolina* for the Azores was at Foz da Ribeira de São Francisco, Santa Maria, on 22–23 September, with the fifth on Corvo on 26 October. Single **American Coots** *Fulica americana* stayed at Lagoa Branca, Flores, on 14–26 October, at Sete Cidades, São Miguel, on 11 November–24

December, and at Lagoa do Capitão, Pico, on 9 December. On 13 August, a **Wilson's Storm-petrel** *Oceanites oceanicus* and an adult **Sabine's Gull** *Xema sabini* were observed 30–50 nautical miles south-west of São Miguel. A **Swinhoe's Storm-petrel** *Hydrobates* (*Oceanodroma*) *monorhis* at Bank of Fortune, Graciosa, on 27 August was the fifth for the Azores in the last four years; also there were three **Wilson's Storm-petrels**. A **Red-footed Booby** *Sula sula* was photographed 16 nautical miles south-east of Faial on 18 June, with another at Pontas Negras, Lajes, Pico, on 2 August. An adult **Masked Booby** *S. dactylatra* flew past Lajes de Pico, Pico, on 4 July, whilst single **Brown Boobies** *S. leucogaster* were observed off Santa Maria on 29 September (Baía dos Anjos) and 7 October (Ilhéu do Mar da Barca). A **Great Blue Heron** *Ardea herodias* was at Ribeira da Conceição, Faial, on 4 October and a **Double-crested Cormorant** *Phalacrocorax auritus* at Mosteiros, São Miguel, on 23–26 December. **Glossy Ibises** *Plegadis falcinellus* were observed on Terceira (up to three, August–December), São Miguel (up to two, September–December), Faial (one, October–December), Santa Maria (one on 23 September–7 October), Flores (one on 12–26 October) and Corvo (up to two, September–October).

Semipalmated Plovers *Charadrius semipalmatus* were present on Terceira throughout the period (up to eight), São Miguel on 4 October (one) and Santa Maria on 4 December (one). No fewer than 40 **White-rumped Sandpipers** *Calidris fuscicollis* were counted at Ponta de Escalvado, São Miguel, on 23 August; on other islands, there were up to 28 on Terceira in late August–late November, up to ten on Corvo in October, up to four on Faial on 10–31 October, up to three on Pico on 10–18 October, one on Flores on 14 October and one on Santa Maria on 2 October. **Semipalmated Sandpipers** *C. pusilla* were reported from Terceira (at least three) and São Miguel (at least one) in late August–October. Single **Solitary Sandpipers** *Tringa solitaria* were on São Miguel on 26–29 August and 14 September, and on Terceira on 24 October. The long-staying **Hudsonian Whimbrel** *Numenius* (*phaeopus*) *hudsonicus* at Cabo da Praia, Terceira (*cf. Bull.* ABC 22: 97, 236) was still present in October; one was also intermittently seen on Faial on 23 September–9 October. Single **Long-billed Dowitchers** *Limnodromus scolopaceus* were reported from Terceira on 17 September, Flores on 13 October, and São Miguel on 28 November, with a **Short-billed Dowitcher** *L. griseus* on Santa Maria on 25 September. **Wilson's Snipes** *Gallinago delicata* were identified on Pico on 23 August (one), Terceira on 17 September–9 December (up to four), Faial on 3–4 October (up to two) and 22 December (one), São Miguel on 10 October (two) and 21–28 November (up to two), Corvo on 21–22 October (one), and Santa Maria on 7–11 December (up to two). A **Great Snipe** *G. media* was on Santa Maria on 22–29 December. An adult **Wilson's Phalarope** *Steganopus tricolor* was discovered at Canada do Junco, Terceira, on 23 August. For the second consecutive year, a pair of **Sooty Terns** *Onychoprion fuscatus* bred succesfully on Ilheu da Praia, Graciosa. A **White-winged Tern** *Chlidonias leucopterus* stayed on Terceira on 6–24 October, whilst a **Whiskered Tern** *C. hybridus* was at Anjos, Santa Maria, on 31 December.

Single **Chimney Swifts** *Chaetura pelagica* were identified on Flores on 24 September, Corvo on 18–20 October and Terceira on 27 October. Two **Alpine Swifts** *Tachymarptis melba* flew over Alagoa da Fajãzinha, Terceira, on 19 May (with six **Common Swifts** *Apus apus* also there) and Lombega, Faial, on 26 May; a **Common Swift** was also seen on São Miguel on 11 June. **Red Kites** *Milvus milvus* were observed on Corvo and Terceira on 16 June, Santa Maria on 23–24 June, 30 July, 3 September and 7–19 December, and São Miguel on 20 September. A **Northern Harrier** *Circus* (*cyaneus*) *hudsonicus* was seen on Corvo on 24 October. In spring, **Red-footed Falcons** *Falco vespertinus* were noted on at least five islands, with up to three on Santa Maria on 29–30 May. A juvenile **Merlin** *F. columbarius* was observed on Flores on 15 October. Single **Peregrine Falcons** *F. peregrinus* were reported from Pico on 11 October, Corvo on 27 October and Terceira on 23–29 October and 27 December. A **Barn Owl** *Tyto alba* was at Portela Velha, Terceira, on 22 November. The third **Common Kingfisher** *Alcedo atthis* for the Azores remained at Ribeira de São Francisco, Santa Maria, from 29 October until at least 29 November. A **Belted Kingfisher** *Megaceryle alcyon* was at Paul da Praia, Terceira, on 1–21 November.

Up to two **Philadelphia Vireos** *Vireo philadelphicus* were present on Corvo on 17–25 October, with several **Red-eyed Vireos** *V. olivaceus* also there (e.g. *c.*11 on 17 October). An **American Barn Swallow** *Hirundo rustica erythrogaster* was observed on Corvo on 24 October, with a first-year **American Cliff Swallow** *Petrochelidon pyrrhonota* also there on 18–24 October. The second **Sedge Warbler** *Acrocephalus schoenobaenus* for the Azores stayed at Poco do Aqua, Corvo, on 9–11 October. At least three **Willow Warblers** *Phylloscopus trochilus* were observed on Corvo in October, with one on São Miguel on 9 October. A few **American Buff-bellied Pipits** *Anthus rubescens rubescens* were on Corvo in October (max. four on 21 October), with one on Faial on 1 November. Single **White Wagtails** *Motacilla alba* were on Flores on 15 October and on Terceira on 23 October. **Eurasian Siskins** *Spinus* (*Carduelis*) *spinus* were noted on Santa Maria (one on 5 December; two on 12th) and Corvo (one on 12–15 October). Up to two **Whinchats** *Saxicola rubetra* were on Corvo on 5–14 October, with one on Flores on 12 October. A **Mistle Thrush** *Turdus viscivorus* at Azenha, São Miguel, on 24 September was the fourth for the Azores. **Song Thrushes** *T. philomelos* were reported on Corvo (one on 27 October), Santa Maria (one on 1 December; three on 13 December) and Pico

(one on 30 December—the first for the island), whilst a **Fieldfare** *T. pilaris* was seen on São Miguel on 22 October. An **American Redstart** *Setophaga ruticilla* at Porto Pim, Faial, on 19–23 September was the tenth for the archipelago. Third records for the Azores, all on Corvo, were a **Hermit Thrush** *Catharus guttatus* on 24 October, a **Swainson's Thrush** *Catharus ustulatus* on 20–23 October and an **American Robin** *Turdus migratorius* on 17 October. At least five **Grey-cheeked Thrushes** *Catharus minimus* were observed on Corvo, including four on 21 and 24 October. On 10 September, a **Baltimore Oriole** *Icterus galbula* landed on a boat *c.*400 km north of Corvo. Other Nearctic species reported on Corvo in October included **Scarlet Tanager** *Piranga olivacea* (several, with max. five on 18th), **Rose-breasted Grosbeak** *Pheucticus ludovicianus* (up to seven on 17th–29th), **Indigo Bunting** *Passerina cyanea* (*c.*13, with 10–12 on 21st), and **Ovenbird** *Seiurus aurocapilla* (one on 17th–18th). American warblers on Corvo in October included a **Blue-winged Warbler** *Vermivora cyanoptera* on 17th–19th (second for the Azores), a hybrid first-year **Golden-winged × Blue-winged Warbler** *V. chrysoptera* × *cyanoptera* on 20th–21st, two **Black-and-white Warblers** *Mniotilta varia* between 15th and 22nd, up to two **Common Yellowthroats** *Geothlypis trichas* on 20th–27th, two **American Redstarts** on 9th and 25th, probably two different **Northern Parulas** *S. americana* on 18th–21st and 24th, up to two **Blackpoll Warblers** *S. striata* on 18th–25th, and two male **Black-throated Blue Warblers** *S. caerulescens* on 21st–22nd. A **Lapland Bunting** *Calcarius lapponicus* was found on Corvo on 14–15 October (per *www.azoresbirdsightings.blogspot.com* and *Dutch Birding* 37: 261–275, 340–353, 403–420).

Benin

The following records are based on nearly three months spent in the field between late August and mid-December 2015. On an island of mangroves in the Mono River at Avlo, near Bouche-du-Roy, local protection of roosting birds led to six species now breeding: **Long-tailed Cormorant** *Phalacrocorax africanus*, **Cattle Egret** *Bubulcus ibis*, **Black Egret** *Egretta ardesiaca*, **Western Reef Egret** *E. gularis*, **Intermediate Egret** *Ardea intermedia* and **African Openbill Stork** *Anastomus lamelligerus* (October). Intermediate Egret is not known to breed on the West African coast any nearer than Guinea-Bissau, and this is the first confirmation of coastal breeding for Openbill Stork; by 31 October it was estimated that >15 pairs of Openbills were breeding, with at least one still incubating, while others had young of different sizes. In Pendjari National Park (=NP), a nest of **Saddle-billed Stork** *Ephippiorhynchus senegalensis* contained two small young on 28 November; two **African Spoonbills** *Platalea alba* at a pan on the same date represent the first record for Benin. New localities for **Red-chested Flufftail** *Sarothrura rufa* (only discovered in March 2015, *cf. Bull. ABC* 22: 236) include Lake Toho near Lokossa, Bassila and Nikki dams (which have permanent water), while a male was singing persistently at Plaine du Sô on 4 October. **Stripe-breasted Flufftail** *S. boehmi,* already known from several localities in the north-west, was heard in a grassy hollow in the Pendjari, a first for the park. An **African Finfoot** *Podica senegalensis* with a small chick was observed in the Mékrou River west of Kérou on 9 September. **Savile's Bustard** *Lophotis savilei* was frequently singing in the rains and was identified not only in 'W' NP, but in any dense bush throughout the north-east, from Guéné to Karimama and Loumbou-Loumbou, reaching its southern limit south of Banikoara at 11°13'N. A **Grey Pratincole** *Glareola cinerea*, a rare vagrant to Benin, was at Nikki dam on 25 September (Fig. 2). An adult **Lesser Black-backed Gull** *Larus fuscus*, seldom reported, was at Bouche-du-Roy on 31 October (Fig. 3). A begging juvenile **African**

Figure 2. Grey Pratincole / Glaréole grise *Glareola cinerea*, Nikki, Benin, 25 September 2015 (Robert J. Dowsett)

Figure 3. Lesser Black-backed Gull / Goéland brun *Larus fuscus*, Bouche-du-Roy, Benin, 31 October 2015 (Robert J. Dowsett)

Cuckoo *Cuculus gularis* was attended by a group of **Yellow-billed Shrikes** *Corvinella corvina* in farmland near Gogounou on 29 August. The range of **Yellowbill** *Ceuthmochares aereus* was extended north to Affon, on the Ouémé River, while a vagrant was singing on the Alibori River in 'W' NP on 5–6 September. An immature **Pel's Fishing Owl** *Scotopelia peli* was calling at Chutes de Koudou, 'W' NP, on 17–18 November, confirming the species' presence in the park. An **African Barred Owlet** *Glaucidium capense* was heard in forest in Pénessoulou Forest Reserve on 13–14 October, a first for Benin. A **Finsch's Flycatcher Thrush** *Stizorhina finschi* was calling in swamp forest on the Iguidi River, south of Pobè, on 11 December; this is only the second locality for Benin.

A **Heuglin's Wheatear** *Oenanthe heuglini* was in a burnt boval in 'W' NP on 16 November (a first for the park), while several were singing and defending territories in burnt plains in Pendjari NP later that month. Singing **Olivaceous Warblers** *Iduna pallida* or *opaca* were discovered in the far north-east, in riparian vegetation on the Sota River near Malanville and on the Niger near Karimama at Bello Tounga, as early as August–September, but their specific identity was not confirmed. The area was invaded by undoubted Western Olivaceous Warblers *I. opaca* in mid/late November. **Moltoni's Warbler** *Sylvia* (*cantillans*) *subalpina* was identified (and photographed) in the far north-east at Kandi, Kargui and Karimama (Bello Tounga) on 18–21 November, with singing individuals producing the characteristic rattle call—this is another new species for Benin. A singing **Common Chiffchaff** *Phylloscopus collybita* was watched at close range at Mare Yangouali, Pendjari NP, on 29 November—yet another new species for the country. A group of **Capuchin Babblers** *Phyllanthus atripennis* was located in thickets along the Ouémé River west of Savé on 9 December; this is just the second locality for Benin. A **Sahel Paradise Whydah** *Vidua orientalis*, a species with a very limited distribution in the far north-east, was displaying at Point Triple, 'W' NP (next to several **Exclamatory Paradise Whydahs** *V. interjecta*), on 16–17 November. **Barka Indigobirds** *V. larvaticola* were located at several new sites, from 'W' NP (Point Triple) south to Bétérou, and **Wilson's Indigobirds** *V. wilsoni* at *c.*10 new sites, being especially common south of 9°N, but also found north to 10–11°N (Oli and Mékrou rivers).

Noteworthy records of migrants include the following. Passage of **European Bee-eaters** *Merops apiaster* started as early as 6 September ('W' NP and surroundings) and continued until the end of October, all the way to the coast. **White-throated Bee-eaters** *M. albicollis* crossed the country throughout November, whilst **African Grey Hornbills** *Tockus nasutus* were still returning in numbers in mid November (e.g. 43 flying south at Alibori on 14 November). Thousands of **Common House Martins** *Delichon urbicum* appeared over water on 10 November (Ndali to Nikki). The first **Whinchats** *Saxicola rubetra* were noted on 22 September in Pendjari NP (two), **Common Redstarts** *Phoenicurus phoenicurus* on 13 November on the Alibori River at Alibori (several), the first **Great Reed Warbler** *Acrocephalus arundinaceus* on 29 September at Bétérou, the first **Garden Warbler** *Sylvia borin* on the exceptionally early date of 6 September on the Alibori River, 'W' NP, while small groups


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Figure 4. Alpine Swifts *Tachymarptis melba* and Mottled Swifts *T. aequatorialis*, Cobly, Benin, 10 November 2015 (Johannes & Sharon Merz)

Martinets à ventre blanc *Tachymarptis melba* et Martinets marbrés *T. aequatorialis*, Cobly, Benin, 10 novembre 2015 (Johannes & Sharon Merz)

Figure 5. Greater Blue-eared Starling / Choucador à oreillons bleus *Lamprotornis chalybaeus*, Cobly, Benin, 25 November 2015 (Johannes & Sharon Merz)

of **Willow Warblers** *Phylloscopus trochilus* appeared in 'W' NP on 5–6 September, and the first **Pied Flycatcher** *Ficedula hypoleuca* on 24 September at Béléfoungou. **Great Reed Warblers** occurred in substantial numbers in some damp sites in the north in November, e.g. in green thickets on the Sota River near Malanville and in the marsh below Tanguiéta dam. **Common Nightingales** *Luscinia megarhynchos* also appeared to have autumn quarters in the north, with many singing on the Sota River near Malanville, on the Alibori River at Alibori and in 'W' NP, in November (*FD-L & RD*).

Additional records from late 2015 include the following. On 9–11 November, large mixed flocks of **Alpine Swifts** *Tachymarptis melba* and **Mottled Swifts** *T. aequatorialis* passed the north-western town of Cobly, Atacora (Fig. 4). A **Greater Blue-eared Starling** *Lamprotornis chalybaeus* was photographed in a garden in Cobly on 25 November (Fig. 5); this is the first confirmed record for the country, earlier records now being considered very doubtful. A male **Cut-throat Finch** *Amadina fasciata* was observed at Yangou, north-west of Cobly, on 29 November (*JM & SM*). Finally, a group of >25 **Anambra Waxbills** *Estrilda poliopareia*, including at least two juveniles, was observed and tape-recorded (http://www.xeno-canto.org/species/Estrilda-poliopareia) at the now well-known site near Sô-Ava in Plaine du Sô on 31 October (*BP*).

Botswana

A **Greater Frigatebird** *Fregata minor* was seen at Ghaghoo Diamond Mine, on the north-eastern boundary of the Central Kalahari Game Reserve, on 3 December; it stayed until the next morning. A **Spotted Crake** *Porzana porzana* was found at Phakalane Maturation Ponds in Gabarone on 6 December. A **European Honey Buzzard** *Pernis apivorus* and a **Green Sandpiper** *Tringa ochropus* were reported from Drotsky's Cabins, in the Panhandle, on 10 December (per *TH*). At Lake Xau, in central Botswana, a **Pallid Harrier** *Circus macrourus*, three **Montagu's Harriers** *C. pygargus*, two **African Marsh Harriers** *C. ranivorus* and three **Chestnut-banded Plovers** *Charadrius pallidus* were observed on 8 November (*IW*). A **Caspian Plover** *C. asiaticus* was reported at Tuli Wilderness Camp, in the Tuli Block, on 22 October, and a group of five at Lake Xau, west of Mopipi, on 8 November (per *TH*). A second-calendar year **Lesser Black-backed Gull** *Larus fuscus* was at Lake Ngami on 29 September (*MM*).

Burkina Faso

In February 2015, an expedition to investigate relationships between Palearctic passerine migrants and trees, part of the 'Living on the Edge' project of Vogelbescherming (BirdLife Netherlands), also produced some unusual records of Afrotropical birds. An **African Scops Owl** *Otus senegalensis* was heard calling 50 km south-west of Dori, on 15th; this is quite far north for this species. Also rather far north was a well-observed **Brown-backed Woodpecker** *Ipophilus obsoletus* just north of Kaya on 13th. A **Plain-backed Pipit** *Anthus leucophrys* and a pair of **Familiar Chats** *Oenanthe familiaris* uttering alarm calls were observed 60 km north-west of Ouagadougou on 7th. A group of three **Sennar Penduline Tits** *Anthoscopus punctifrons* was found 60 km north of Kaya on 12th and a group of three **Yellow Penduline Tits** *A. parvulus* just 60 km from there, north-west of the same locality, on 10th. A group of six **Common Waxbills** *Estrilda astrild* was recorded 50 km north-east of Kaya on 14th, further indicating that some Sudano-Guinean species can be found in drier regions (*JH, MS & JZ*; for details see www.wabdab.org).

Cameroon

Records from the period July–December 2015 include the following. A **Red-necked Falcon** *Falco chicquera* was photographed at Domaine de Petpenoun, 15 km north of Foumbot, West Province, on 26 September (Fig. 6; *MvB*). A **Willcocks's Honeyguide** *Indicator willcocksi* was observed at Ebogo, south of Mbalmayo, on 17 October (*BP*). A visit to Emvong savanna, north of Akonolinga, Centre Province, on 20 September produced a breeding pair of **Forbes's Plover** *Charadrius forbesi*, **Black-headed Batis** *Batis minor*, **Orange-tufted Sunbird** *Cinnyris bouvieri*, **Brubru** *Nilaus afer* and a small group of **Cuckoo Finches** *Anomalospiza imberbis*. As in 2014 during the same period, several **Ethiopian Swallows** *Hirundo aethiopica* stayed around Yaounde Golf Club in July (*ML & MvB*).


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Figure 6. Red-necked Falcon / Faucon chicquera *Falco chicquera*, Domaine de Petpenoun, north of Foumbot, West Province, Cameroon, 26 September 2015 (Mark van Boekel)

Canary Islands

Records from the period late May–late November 2015 include the following. The first **Long-tailed Duck** *Clangula hyemalis* for the Canary Islands was a female photographed at Janubio salt pans, Lanzarote, on 7 November (per *Dutch Birding* 37: 403). Four **Ring-necked Ducks** *Aythya collaris*, three males and a female, were at Tejina ponds, Tenerife, from early November (*RB, DT* et al.). A first-year **Pied-billed Grebe** *Podilymbus podiceps* at Estanques de Aldea Blanca, Gran Canaria, on 14

Figure 7. Juvenile Eurasian Dotterel *Charadrius morinellus*, Los Rodeos, Tenerife, Canary Islands, 1 October 2015 (Rubén Barone)

Pluvier guignard *Charadrius morinellus* juvénile, Los Rodeos, Tenerife, Îles Canaries, 1 octobre 2015 (Rubén Barone)

Figure 8. First-winter Long-billed Dowitcher *Limnodromus scolopaceus*, Las Galletas, Tenerife, Canary Islands, 2 November 2015 (Rubén Barone)

Bécassin à long bec *Limnodromus scolopaceus* de 1er hiver, Las Galletas, Tenerife, Îles Canaries, 2 novembre 2015 (Rubén Barone)

Figure 9. Western Olivaceous Warbler / Hypolaïs obscure *Iduna opaca*, Barranco de Jarubio, Fuerteventura, Canary Islands, 7 June 2015 (Rubén Barone)

November was the second for the archipelago (per *Dutch Birding* 37: 406). Three immature **Northern Gannets** *Morus bassanus* flew past Punta de Jandía, Fuerteventura, on 9 June (*RB & ES*). On 22 May, an adult **Red-footed Booby** *Sula sula* was seen off El Hierro (per *Dutch Birding* 37: 262). Four pairs of **Black-winged Stilts** *Himantopus himantopus* with seven young were counted on Lobos islet, Fuerteventura on 11 June; breeding on this islet was confirmed for the first time in May 2014 (*RB, GG & ES*). An adult female **Lesser Sand Plover** *Charadrius mongolus atrifrons* was found on Lanzarote, on 7 August (per *Dutch Birding* 37: 343). On Tenerife, three juvenile **Eurasian Dotterels** *C. morinellus* were at Los Rodeos on 1 October (Fig. 7; *RB & DT*) and a juvenile **Baird's Sandpiper** *Calidris bairdii* at a dam near Las Galletas on 17–25 September (*RB* et al.). A first-winter **Long-billed Dowitcher** *Limnodromus scolopaceus* was present on the same island on 9 October–13 November (Fig. 8; *RB, EG* et al.). A **South Polar Skua** *Stercorarius maccormicki* was observed at sea between La Palma and Tenerife on 25 October (per *Dutch Birding* 37: 409). A **Gull-billed Tern** *Gelochelidon nilotica* was noted at a reservoir near El Médano, Tenerife, on 9 July (*RB & NR*). Two pale-morph **Booted Eagles** *Hieraaetus pennatus* flew over Lobos islet, Fuerteventura, on 11 June (*RB, GG & ES*). An immature female **Red-footed Falcon** *Falco vespertinus* was seen at Los Rodeos, Tenerife, on 30 September and 3 October (*RB, ES* et al.).

A few **Yellow-browed Warblers** *Phylloscopus inornatus* were observed on Fuerteventura on 7 November, following a large influx in western Europe (per *Dutch Birding* 37: 414). Also on Fuerteventura, a **Western Olivaceous Warbler** *Iduna opaca* was photographed on 7 June (Fig. 9; *RB, GG & ES*), with a **Melodious Warbler** *Hippolais polyglotta* also there on the same date (*RB & ES*). A male **Capian Stonechat** *Saxicola maurus hemprichii* was reported from La Graciosa on 22–23 October. An adult **Bobolink** *Dolichonyx oryzivorus* at Puerto del Carmen, Lanzarote, between 29 September and 2 October was the second for the Canary Islands; the first was in 1984 (per *Dutch Birding* 37: 419).

Chad

In September 2015 the following were recorded. A **Pink-backed Pelican** *Pelecanus rufescens* in full breeding plumage was observed on a northern branch of Ouadi Rimé on 19th. In the same area, two groups of 100 and 400 **Yellow-billed Storks** *Mycteria ibis* were encountered, as well as similar numbers of **Marabou Storks** *Leptoptilos crumenifer* and up to 750 **Knob-billed Ducks** *Sarkidiornis melanotos*. Eight **Marbled Teals** *Marmaronetta angustirostris* were present with other waterfowl on Ouadi Kharma on 17th. At least four **European Honey Buzzards** *Pernis apivorus*, including an immature, were seen along Ouadi Kharma on 16th–17th. An immature **Demoiselle Crane** *Grus virgo* was resting in the seasonal wetlands of Ouadi Haddat on 14th, and two adults flew over Ouadi Kharma on 17th. Also there on 17th were two **Black-winged Pratincoles** *Glareola nordmanni*, whilst a **Three-banded Plover** *Charadrius tricollaris* at Ouadi Haddat was several hundreds of km north-east of its known range. Seldom-recorded migrant waders at Ouadi Kharma included two **Common Snipes** *Gallinago gallinago*, two **Curlew Sandpipers** *Calidris ferruginea,* a **Dunlin** *C. alpina* (showing remnants of summer plumage) and a **Bar-tailed Godwit** *Limosa lapponica.* Single **Wrynecks** *Jynx torquilla* were encountered on three different days in the Ouadi Rimé–Ouadi Achim area. A **Didric Cuckoo** *Chrysococcyx caprius* displayed by intermittently extending one wing forward while singing vigorously from a treetop. Two martins within a mixed flock of hirundines and swifts above the town of Biltine on 8th were identified as **Pale Crag Martins** *Ptyonoprogne obsoleta*. **Icterine Warblers** *Hippolais icterina* were encountered more often than usual in the Chadian Sahel, with daily sightings of up to three together between 12th and 17th. *Ficedula* flycatchers were also present in unusually large numbers in isolated *Balanites* trees and thickets, and it appeared that many, possibly the majority, were **Collared Flycatchers** *F. albicollis* (Fig. 10). A small colony of **Chestnut Sparrows** *Passer eminibey* was recorded for the first time in Chad—full details will be published in the next *Bull. ABC* (*TW*).

Figure 10. Collared Flycatcher / Gobemouche à collier *Ficedula albicollis,* Ouadi Rimé-Ouadi Achim Game Reserve, Chad, 11 September 2015 (Tim Wacher)

Congo-Brazzaville

In June–November 2015 the following were reported. The first **Franklin's Gull** *Leucophaeus pipixcan* for the country was observed at the Kouilou River mouth on 14 and 21 November (*MW*; per *Dutch Birding* 37: 409 & *HBW Alive Newsletter* 19).

New records for Tchimpounga Nature Reserve, 40 km north of Pointe Noire, in November include **White Stork** *Ciconia ciconia* (50 on 20th), **Allen's Gallinule** *Porphyrio alleni* (one on 22nd), **Green Sandpiper** *Tringa ochropus* (one on 16th), **Namaqua Dove** *Oena capensis* (one on 17th), **Common Cuckoo** *Cuculus canorus* (one on 22nd), **European Roller** *Coracias garrulus* (one on 15th), **Common Sand Martin** *Riparia riparia* (one on 11th), **White-throated Greenbul** *Phyllastrephus albigularis* (three ringed on 19th), **Red-tailed Greenbul** *Criniger calurus* (one ringed on 19th), **Sedge Warbler** *Acrocephalus schoenobaenus* (one ringed on 12th), **Red-backed Shrike** *Lanius collurio* (two on 12th and 21st) and **Johanna's Sunbird** *Cinnyris johannae* (one on 22nd).

Other notable records from the reserve include eight **Pink-backed Pelicans** *Pelecanus rufescens* at the Kouilou River mouth on 17 June, two **African Spoonbills** *Platalea alba* flying south over the Kouilou River mouth on 18 July, two oversummering **Ospreys** *Pandion haliaetus* in June–July, a **European Honey Buzzard** *Pernis apivorus* on 7 November, a **Western Marsh Harrier** *Circus aeruginosus* on 11 November, a second-year **Chestnut-flanked Sparrowhawk** *Accipiter castanilius* ringed on 18 November, an **Ayres's Eagle** *Hieraaetus ayresii* along the Kouilou River on 18 July, a **Great Snipe** *Gallinago media* on 7 November, a **Wattled Starling** *Creatophora cinerea* on 20 June, and small flocks of **Cuckoo Finches** *Anomalospiza imberbis* on 13 November. A kestrel observed at Pointe Noire on 16 June and presumably breeding, was either a **Rock Kestrel** *Falco* (*tinnunculus*) *rupicolus* or a **Common Kestrel** *F. tinnunculus rufescens*; similar kestrels were also noted in Tchimpounga Nature Reserve (*MW*).

Côte d'Ivoire

Records from 2015 include the following. In recently flooded forest

Figure 11. Juvenile Yellow-billed Storks *Mycteria ibis*, Assouinde, Côte d'Ivoire, 21 November 2015 (Lionel Sineux)

Tantales ibis *Mycteria ibis* juvéniles, Assouinde, Côte d'Ivoire, 21 novembre 2015 (Lionel Sineux)

of Banco National Park (=NP), three **Dwarf Bitterns** *Ixobrychus sturmii* were observed on 3 January, with one also there on 17 October. A juvenile **Lanner Falcon** *Falco biarmicus* was at Bingerville Botanical Garden on 12 April; this species is uncommon in the south. A **Peregrine Falcon** *F. peregrinus* flew over the east of Abidjan on 24 September. A **Fraser's Eagle Owl** *Bubo poensis* was flushed in Banco NP on 3 January. An **African Wood Owl** *Strix woodfordii*—not listed for the park by Lachenaud (2006. *Malimbus* 28: 107–133)—was seen on 23 May 2010. Also there, an **Ashy Flycatcher** *Muscicapa caerulescens* was found on 3 January; there are few records for the park (*BB*).

One year after the discovery of a pair of **Double-toothed Barbets** *Pogonornis* (*Lybius*) *dubius* at Assouinde, on the coast, a breeding pair was found at the same site in July. Also at Assouinde, two juvenile **Yellow-billed Storks** *Mycteria ibis* were photographed on 21 November (Fig. 11); this is the fourth record outside Comoé NP, in the north-east, where the species breeds, and the first from the coast (*LS*). Another unusual coastal record was made on 2 November, when a pair of **Blue-bellied Rollers** *Coracias cyanogaster* was observed in an Abidjan schoolyard, *c.*150 km south of the species' known range (*BJ* per *LS*).

DR Congo

In September 2015, a BirdQuest group led by Mark Van Beirs managed to observe a roosting female **Congo Peafowl** *Afropavo congensis* in Lomako-Yokokala Faunal Reserve, Equateur Province (*www.birdquest-tours.com*). In December, a large group of **Mottled Swifts** *Tachymarptis aequatorialis* was seen well after heavy rain near Lokofa, in Salonga National Park, far from their known range. Several **White-headed Robin Chats** *Cossypha heinrichi* were observed in Bombo-Lumene Hunting Reserve, including at a new site, on 6 December (*ML*).

Egypt

The following reports are from the period May–August 2015. At least 140 **Chestnut-bellied Sandgrouse** *Pterocles exustus* were counted near Sandafa, Minya, on 9 August. At Wadi Lahami, Red Sea province, one or two **Yellow Bitterns** *Ixobrychus sinensis* were singing on 27–28 June. If accepted, a putative **Yellow Bittern** seen and heard near Luxor on 11 August would be the first for the Nile Valley. A **Tawny Eagle** *Aquila rapax* was photographed at Marsa Alam on 8 May. At least 160 **Saunders's Terns** *Sternula saundersi* were present at their colony near Ras Sudr, Sinai, on 8 August. **Mangrove Olivaceous Warblers** *Iduna pallida alulensis* were found to be common in mangroves south of Safaga, Red Sea (per *Dutch Birding* 37: 262–269, 340–351).

Ethiopia

An adult **'Archer's Buzzard'**—a colour morph of Augur Buzzard *Buteo augur*—was photographed on 25 January 2015 south of Negelle (Fig. 12); this is the first record of this morph in Ethiopia (*ZHM, MZ & BC* per *HB*). In early November, 4–5 **Rufous-rumped Larks** *Pinarocorys erythropygia* were observed in Kafta-Sheraro National Park, in the north-west (Fig. 13)—apparently representing the first record for Ethiopia (*HP*).

During a visit to the Danakil area in April 2015, **African Collared Doves** *Streptopelia roseogrisea* were noted at Afrera (13°12'–13'N 40°51'–42'E) on 1st–2nd (some displaying), at Ertale base camp and in wadis to the top of the mountain

Figure 12. Adult 'Archer's Buzzard' *Buteo augur*, Negelle area, Ethiopia, 25 January 2015 (Martin Zimmerli)

'Buse d'Archer' adulte – qui est en fait une forme rousse de la Buse augure *Buteo augur* –, environs de Negelle, Éthiopie, 25 janvier 2015 (Martin Zimmerli)

Figure 13. Rufous-rumped Lark / Alouette à queue rousse *Pinarocorys erythropygia*, Kafta-Sheraro National Park, Ethiopia, 1 November 2015 (Håkan Pohlstrand)

Figure 14. Striped Crake / Marouette rayée *Amaurornis marginalis*, Maasai Mara National Reserve, Kenya, 10 July 2015 (Onesmus Ole Irungu)

Figure 15. Denham's Bustard / Outarde de Denham *Ardeotis denhami*, Mara Naboisho Conservancy, Kenya, 11 June 2015 (Stratton Hatfield)

(13°34'N 40°35'E) on 3rd–4th (some; also three nests in *Acacia*) and at Hamadela (14°05'N 40°16'E) on 4th–5th (many, including two adults feeding fledglings). Several **Red-knobbed Coot** *Fulica cristata* families were observed at a small dam between Serdo and Afrera (12°07'N 41°13'E) on 1 April, whilst six nests and three pairs with downy young were at Adwa dam, near Adi Abun (14°11'N 38°52'E), on 7th. A dead **Heuglin's Bustard** *Neotis heuglini* was found in Dallol canyon (14°13'N 40°17'E) on 4th. **House Sparrows** *Passer domesticus* were observed near Kursod (13°26'N 40°30'E) on 3rd (>100, including females feeding fledglings; many nests in school buildings), Hamadela salt camp (14°05'N 40°16'E) on 4th–5th (*c.*25, including some *P. d. rufidorsalis* and intermediates) and Bir Haile (13°51'N 40°01'E) on 6th (*c.*10, only *P. d. indicus*) (*JHr*).

Kenya

An **Oriental Honey Buzzard** *Pernis ptilorhynchus* observed in Meru National Park (=NP) in September 2014 was only recently identified on the basis of photographs; this is the first for Kenya and just the second for sub-Saharan Africa, following one in Gabon in August 2004 (cf. *Bull. ABC* 13: 207–210).

The following reports are from the period May–December 2015. A **Goliath Heron** *Ardea goliath*, a rare species in Nairobi District, was observed in Langata suburb on 23 October. In Nairobi NP, single **African Crakes** *Crex egregia* were noted on 26 July and 25 November; this species is seldom recorded in the park. A **Striped Crake** *Amaurornis* (*Aenigmatolimnas*) *marginalis*, a rare species in Kenya, was seen along the Mara River in Maasai Mara National Reserve on 10 July (Fig. 14). **Egyptian Vultures** *Neophron percnopterus* were observed in Samburu National Reserve in July (a pair), at Lake Turkana in early December (an adult and immature), and in Tsavo East NP in December (one); this Endangered species is declining rapidly in Kenya. On 5 August, a **Palm-nut Vulture** *Gypohierax angolensis* was seen in Nairobi NP. A **Eurasian Sparrowhawk** *Accipiter nisus*, a rarely recorded migrant, was noted on Lolldaiga Ranch, Laikipia District, on 3 November, with a **Taita Falcon** *Falco fasciinucha* also there on the same date. A **Beaudouin's Snake Eagle** *Circaetus beaudouini* was at Bunyala, in western Kenya, on 15 November. A **Denham's Bustard** *Ardeotis denhami*, a declining species in the country, was seen in the Mara Naboisho Conservancy on 11 June (Fig. 15). At the Nairobi Race Course, near Ngong Forest, a male and two female **Eastern Bronze-naped Pigeons** *Columba delegorguei*—an uncommon altitudinal migrant in the Nairobi area—were observed on 29 July, with the fourth **Golden-tailed Woodpecker** *Campethera abingoni* for the area also there. A pair of **Black Coucals** *Centropus grillii* at Arabuko Swamp, next to Arabuko-Sokoke Forest, on 29 November, constituted the first record on the coast in probably >20 years.

Four **Short-tailed Larks** *Spizocorys* (*Pseudalaemon*) *fremantlii* with young were found in Nairobi NP on 5 October—a remarkable breeding record for a species that is rarely noted at this site. The presence of **Eastern Nicator** *Nicator gularis* in Mukogodo Forest, just north

of Mount Kenya, was confirmed in November 2015—a surprising range extension. An **Eastern Bearded Scrub Robin** *Cercotrichas quadrivirgata* was discovered at the National Museums of Kenya in Nairobi on 6 October; this is the first record from this well-watched location. The first **Brown-tailed Rock Chats** *Oenanthe* (*Cercomela*) *scotocerca* at Lolldaiga Ranch (a pair) were noted on 3 November. A **Spotted Ground Thrush** *Geokichla* (*Zoothera*) *guttata* was observed at Gede Forest Station on 25 October; this declining species has been rarely recorded in recent years. A pair of **Long-tailed Cisticolas** *Cisticola angusticauda* was seen in Olkirimatian Group Conservancy, near Magadi, in early June; an unusual record in this part of Kenya. The first **Rock-loving Cisticolas** *C. aberrans* for the Gwassi Foothills, along Lake Victoria (a pair), were identified on 31 October. A **Semi-collared Flycatcher** *Ficedula semitorquata* was in the Nairobi suburb of Langata on 29 October, with another at Lolldaiga Ranch on 3 November. In November, a **Hunter's Sunbird** *Chalcomitra hunteri* was found near Mukogodo Forest, just north of Mount Kenya, at >1,700 m—an unusually high altitude. A pair of **Shining Sunbirds** *Cinnyris habessinica* and a pair of **Three-streaked Tchagras** *Tchagra jamesi* were observed on Lolldaiga Ranch at 1,700 m, on 3 November; neither had been recorded there previously. A small flock of **Sharpe's Starlings** *Cinnyricinclus sharpii* in Nairobi NP on 26 July constituted just the second record for the park (per *SH*).

Liberia

The following records are from the period late May–August 2015. An adult **Black-shouldered Kite** *Elanus caeruleus* was observed near Duazon, east of Monrovia, on 14 June and 18 August, and an immature **Shikra** *Accipiter badius* in Monrovia on 26 August; both species are rarely recorded on the coast. An **Ayres's Eagle** *Hieraaetus ayresii* near Careysburg, *c.*24 km north-east of Monrovia, on 23 August is a new locality. Also near Careysburg on 23–24 August, i.e. in the rainy season, a group of 5–6 **Long-tailed Nightjars** *Caprimulgus climacurus*, including at least two juveniles, was found; Gatter (1997. *Birds of Liberia*) considers the species to be a dry-season visitor and possible resident, but there are no breeding records. **Senegal Parrots** *Poicephalus senegalus* are still present in Monrovia, but in much smaller numbers than **Rose-ringed Parakeets** *Psittacula krameri*: they were seen only twice in *c.*20 days between May and late August 2015, with max. five on 27 August, whereas Rose-ringed Parakeets were seen quite regularly; both species are thought to have been introduced and have established local populations. Up to five **Ethiopian Swallows** *Hirundo aethiopica* were at Libassa Lodge, Margibi County, east of Monrovia, on 30–31 May. At least one pair of **Sharpe's Apalises** *Apalis sharpii* at Wulki Farm, near Careysburg, on 23–24 August, is a new locality, a considerable distance from the species' known range (*BP*).

Madagascar

House Sparrows *Passer domesticus* were observed at Mahajanga on 30 November 2015 (*MM*); this appears to be the first record of this invasive species on the west coast of the country (*cf.* Safford & Hawkins. 2013. *The Birds of Africa*. Vol. 8) and it is only known to be established within a 50 km radius of Toamasina, on the east coast.

Madeira

An adult male **American Yellow Warbler** *Setophaga* (*petechia*) *aestiva* at Lugar de Baixo on 20 August 2015 was the second for the archipelago; the first was in 1994 (per *Dutch Birding* 37: 353). The second **Bluethroat** *Luscinia svecica* for Madeira was a first-winter male at Ponta do Pargo, and the third a first-winter female at Lugar de Baixo, both on 23 October; the first record was in March 2012. A **Spotless Starling** *Sturnus unicolor* at Caniçal on 26 October was the third for Madeira.

Additional records from October 2015 include an **Osprey** *Pandion haliaetus* at Machico on 11th, up to two **Western Marsh Harriers** *Circus aeruginosus* at Ponta do Pargo on 24th–28th, a **Eurasian Spoonbill** *Platalea leucorodia* at Santa Cruz on 20th, a **White-rumped Sandpiper** *Calidris fuscicollis* at Lugar de Baixo on 23rd–24th, a **Greater Short-toed Lark** *Calandrella brachydactyla* at Caniçal on 22nd, a **Tawny Pipit** *Anthus campestris* and a **Meadow Pipit** *A. pratensis* at Ponta do Pargo on 23rd, two **Black Redstarts** *Phoenicurus ochruros* also there on 23rd (with one at Caniçal on 28 December), at least seven **Whinchats** *Saxicola rubetra* at various sites on 22nd–28th, a **Wood Warbler** *Phylloscopus sibilatrix* at Caniçal on 22nd, up to four **Sardinian Warblers** *Sylvia melanocephala* at Caniçal and Garajau on 22nd–26th (with one at Caniçal on 19 November), a **Common Whitethroat** *S. communis* and at least seven **Song Thrushes** *Turdus philomelos* at Caniçal on 22nd, and up to three **Spotted Flycatchers** *Muscicapa striata* at Caniçal on 22nd–26th, with one at Porto Moniz on 28th (per *www.madeirabirds.com*).

Mauritania

The first **Swinhoe's Storm-petrel** *Hydrobates* (*Oceanodroma*) *monorhis* for West Africa was observed south-west of Nouakchott on 6 September 2015—see Africa Round-up for details. As during the same period in 2014, vast numbers of **Black Terns** *Chlidonias niger* (probably >40,000 individuals) congregated near Nouadhibou at nightfall in September (*KC*).

Morocco

The following were reported for the period May–December 2015. The second **Long-tailed Duck** *Clangula hyemalis* for Morocco was photographed at Essaouira on 20 December and was still present in January; the first for the country and continental Africa was photographed at Oualidia lagoon in June 2014. In 2015, 116 pairs of **Northern Bald Ibises** *Geronticus eremita* bred in

Morocco, including 60 pairs with 111 young at the Tamri colony and 56 pairs with 94 young at the Oued Massa colony. In Western Sahara, single **Namaqua Doves** *Oena capensis* were photographed at Safia, Oued Dahab, on 19 and 22 May. Four **Rüppell's Vultures** *Gyps rueppelli* flew past Fnideq, on the Mediterranean coast, on 4 June. On 28 October, two **Rüppell's Vultures** and no fewer than 3,500 **Griffon Vultures** *Gyps fulvus* crossed the Strait of Gibraltar and passed Jbel Moussa. Five of the six juvenile **Spanish Imperial Eagles** *Aquila adalberti* fitted with satellite tags in Andalucía in 2015 stayed south of the Atlas in October; on 7 November, a first-year was photographed near Goulimime. A three-year-old male **Peregrine Falcon** *Falco peregrinus* ringed in Sweden was captured at Casablanca on 18 December and subsequently released. A **Pied Crow** *Corvus albus* was photographed at Fnideq on 26 March; probably the same individual was seen on 10 October, with one also found at Ouled Driss, M'Hamid, on 1 November; possibly two (or more?) Pied Crows are present in the area and are moving between northern Morocco, southern Spain and Portugal. Following a large influx into western Europe, a few **Yellow-browed Warblers** *Phylloscopus inornatus* were observed near Rabat from mid October (per *moroccanbirds.blogspot.com* and *Dutch Birding* 37: 261–271, 406–414).

Mozambique

In June–December 2015, the following were reported. A ten-week study of seabirds by Dominic Rollinson, mostly off Inhambane Province, yielded interesting records, including three firsts for Mozambique: **Swinhoe's Storm-petrel** *Hydrobates* (*Oceanodroma*) *monorhis* on 7 and 22 September and 3 October (at *c.*22–23°S 36–37°E); **Matsudaira's Storm-petrel** *H. matsudairae* on 8 August and 20 September (23–24°S 35–36°E) and **Leach's Storm-petrel** *H. leucorhous* on 6 September (21°S 36°E). Additionally, single **Matsudaira's / Swinhoe's Storm-petrels** were noted on 29 September and 17 October. A **White-faced Storm-petrel** *Pelagodroma marina* was observed on 6 October (23°S 36°E). **Black-bellied Storm-petrels** *Fregetta tropica* were seen almost daily between 12 September and 13 October, with up to 30 individuals in a day (22–23°S 35–37°E). A **Jouanin's Petrel** *Bulweria fallax* flew past on 5 October (23°S 36°E). Surprisingly, just one **Tropical Shearwater** *Puffinus bailloni* was recorded (on 3 August at 26°S 35°E) and just one tropicbird, a **Red-tailed Tropicbird** *Phaethon rubricauda* (on 11 September at 23°S 36°E). **Sooty Tern** *Onychoprion fuscatus* was the commonest species, often in feeding flocks hundreds strong, with eight **Bridled Terns** *O. anaethetus* on 27–29 August (20°S 36°E). About ten **Arctic Terns** *Sterna paradisaea* were observed on 2–5 August (26°S 35°E). **Great Frigatebirds** *Fregata minor* were seen almost daily with a total of *c.*250 counted; on one occasion *c.*50 flew above the boat. On the other hand, just one **Lesser Frigatebird** *F. ariel* was noted (on 10 September at 23°S 36°E). There were 20 sightings of **Red-footed Boobies** *Sula sula*; birds would often perch on the mast for days whilst periodically hunting flying fish. Two **South Polar Skuas** *Stercorarius maccormicki* stayed around the vessel on 1–4 August (26°S 35°E). Finally, several **Mascarene Martins** *Phedina borbonica* rested on the boat on 27 September (22°S 36°E) before presumably heading off to Madagascar (*DR*).

Other records from the period include the following. **Greater Frigatebirds** were observed near the Ponta da Barra lighthouse on 6 July (one); over Linene Island near Vilanculous on 30 September (one), with another three just offshore of that location a few days previously, and a total of 11 flying over Paindane Resort towards Barra in early October (per *TH*). A pelagic trip out of Maputo on 13 June found the notably large number of 400 **Flesh-footed Shearwaters** *Ardenna carneipes* following a trawler, along with four **Brown Skuas** *S. antarcticus*. Another trip on 3 October yielded up to eight **Black-bellied Storm-petrels** (the first recorded off Maputo since a singleton in the 1970s), a **Tropical Shearwater** and a large flock of >800 **Sooty Terns**. A **Lesser Black-backed Gull** *Larus fuscus* was found at Maputo Bay on 25 November—possibly the same individual that was present there earlier in the year (*cf. Bull. ABC* 22: 244) (*GA*). A **Common Noddy** *Anous stolidus* was roosting amongst other terns on the northern coast of Inhaca Island on 12 December (*CB*). The first **Red-necked Stint** *Calidris ruficollis* for Mozambique was discovered in Maputo on 10 September and last seen on 28 September (*GA*; see details elsewhere in this issue). A **European Honey Buzzard** *Pernis apivorus* was located at Inhamitanga on 3 December. A **Lesser Jacana** *Microparra capensis* and a **Red-chested Flufftail** *Sarothrura rufa* were found at Maputo Golf Club on 13 December (*GA, RH*). In July, a population of **Green Tinkerbirds** *Pogoniulus simplex* was discovered south of the Save River and north of Inhassoro (*TG* per *GA*). A male **Whinchat** *Saxicola rubetra* and a female **Eurasian Blackcap** *Sylvia atricapilla* were found on Mount Gorongosa on 29 November and were both present until at least 18 December; this appears to be only the 20th Whinchat and approximately the 23rd Blackcap for southern Africa (per *TH*).

Namibia

Records from the period July–December 2015 include the following. A **Fulvous Whistling Duck** *Dendrocygna bicolor* and two **White-backed Ducks** *Thalassornis leuconotus* were at Gammams Water Treatment Works, Windhoek, on 9 August; both species are unusual in the centre of the country. A juvenile **Little Bittern** *Ixobrychus minutus* was found in a garden in Luderitz on 29 November, well outside its known range. A **Spotted Crake** *Porzana porzana* was observed at Rundu Sewage Works on 27 November.

A satellite-tagged female **European Honey Buzzard** *Pernis apivorus* that spent the austral summer in Free State, South Africa, was in the Caprivi Strip on 2 November. Single **European Honey Buzzards** were also noted at Monte Christo farm, *c.*30 km north of Windhoek, on 21 November; in Klein Windhoek on 27 November; at Teufelsbach farm, *c.*45 km north of Windhoek, on 29 November; over the Protea Hotel, Katima Mulilo, on 6 December; and at Avis Dam, Windhoek, on 8 December. A juvenile **Black Sparrowhawk** *Accipiter melanoleucus* flew over Halali, Etosha National Park (=NP) on 5 August, well outside its known range. A **Red-necked Buzzard** *Buteo auguralis* was reported from Ngepi Camp, in the Caprivi Strip, on 23 September; if confirmed, this would be the seventh record for southern Africa.

Eurasian Oystercatchers *Haematopus ostralegus* were observed at Sandwich Harbour on 18 July (at least two) and at Walvis Bay Lagoon on 1 September (one), 23 October (one) and 14 November (at least two). A **Pacific Golden Plover** *Pluvialis fulva* in full breeding plumage was present at Lover's Hill, Walvis Bay, on 18 July. A **Caspian Plover** *Charadrius asiaticus* and two **Slaty Egrets** *Egretta vinaceigula* were located at Onesi Dam, *c.*35 km east of Ruacana, on 26 September. Single **Pectoral Sandpipers** *Calidris melanotos* were at Rietfontein, Etosha NP, on 2 October and along the Kavango River near Shamvura on 18 October. A **Eurasian Curlew** *Numenius arquata* was *c.*15 km north of King Nehele Gate of Etosha NP from 28 October until at least 13 November. On 17 September, a **Whimbrel** *N. phaeopus* was at Rietfontein and a **Ruddy Turnstone** *Arenaria interpres* at Homob in Etosha NP. At least five **Red-necked Phalaropes** *Phalaropus lobatus* were still present in Walvis Bay on 5 December.

A **Grey-headed Gull** *Chroicocephalus cirrocephalus* was at Avis Dam, Windhoek, on 12 July; this is a very unusual species in central Namibia. At Walvis Bay, a **Black-headed Gull** *C. ridibundus* was reported on 23 September and a **Franklin's Gull** *Leucophaeus pipixcan* on 14 November. A **Lesser Black-backed Gull** *Larus fuscus* was at Mahango Safari Lodge, in the Kavango region, on 14 October. At Mile 4 Salt Works, just north of Swakopmund, a tern resembling an **Elegant Tern** *Thalasseus elegans* was observed on 1 November; this is just the third record for Namibia and the seventh for southern Africa (the first was at Strandfontein Sewage Works, South Africa, in January 2006)—the identity of these terns has still not been unequivocally established.

An out-of-range male **Pennant-winged Nightjar** *Caprimulgus vexillarius* was seen at Hobatere Lodge on 20 October. An **African Grey Hornbill** *Tockus nasutus* was at Greenfire Desert Lodge, *c.*130 km south of Sesriem, on 6–8 September. A **Tree Pipit** *Anthus trivialis* stayed in Okaukeujo, Etosha NP, from 16 November until at least 20th. On 2 August, a **Karoo Thrush** *Turdus smithi* was encountered at Sossusvlei, quite far north for this species. An **African Reed Warbler** *Acrocephalus (scirpaceus) baeticatus* was present in a garden in Luderitz on 17–18 October, somewhat out of range. Single **Collared Flycatchers** *Ficedula albicollis* were observed just south of Anderson Gate, Etosha NP, on 13 October, and at Rustig Toko Lodge, between Kamanjab and Etosha NP, on 26 October; this species is rarely reported in the country. A **House Crow** *Corvus splendens* was still present at the Pelican Bay Protea Hotel, Walvis Bay, in late November (per *TH*).

Niger

Noteworthy breeding records for 2015 include the following. Two nests of **Egyptian Vultures** *Neophron percnopterus* were found in eastern Niger in August (*TR & AH*); unfortunately the species is hunted in that area, to be sold for black magic purposes in Nigeria. **Lesser Striped Swallows** *Cecropis abyssinica* were found breeding in a culvert near Galmi in August; this constitutes a range extension considerably east of Dallol Bosso, as well as the first nests on a man-made structure in Niger. A juvenile **African Cuckoo** *Cuculus gularis* was attended by a pair of **Yellow-billed Shrikes** *Corvinella corvinella* near Maradi in September, but was not seen to be fed by them. A month later in the same general area, a juvenile **Levaillant's Cuckoo** *Clamator levaillantii* was being fed by **Brown Babblers** *Turdoides plebejus*. Also in October, a juvenile **Didric Cuckoo** *Chrysococcyx caprius* was attended by a male **Little Weaver** *Ploceus luteolus* at Niamey; this is the first proof of breeding of Didric Cuckoo in Niger since 1922 and the first record of Little Weaver as a host (*TK & BK* per *JB*).

São Tomé & Príncipe

The first **Eurasian Golden Oriole** *Oriolus oriolus* for the island of São Tomé was photographed at Mucumbli Ecotourism Lodge, Ponta Figo, on 28 December 2015; this is the second record for São Tomé and Príncipe, the first dating from November 1954, on Príncipe (*MvB & KB*). Full details will be published in *Bull. ABC*.

Senegal

The following records are mainly from the period July–November 2015, with a few from earlier dates. A female **Knob-billed Duck** *Sarkidiornis melanotos* was at Lac Tanma, just north-east of Dakar near Kayar, on 11 September, at the same spot where a pair with young was found a few years ago (*BP*). **Brown Boobies** *Sula leucogaster* were observed during four seawatches at Ngor, Dakar, between 4 and 25 October and on 21 November, with a max. of two adults and one immature on 25 October (*BP & SC*). Other seabirds recorded from the same site include two **Great Shearwaters** *Ardenna gravis* on 19 September (*BP*), *c.*600 **Sooty Shearwaters** *A. grisea* on 24 September, with *c.*380 the next day (*BP & SC*), and up to 30 **Sabine's Gulls** *Xema sabini* on 6 September (*BP*). At least two **Hadada Ibises** *Bostrychia hagedash* were at Lac Rose, on the outskirts of Dakar,

on 9 August. Two adult **Black Crowned Cranes** *Balearica pavonina* were noted at Lac Tanma on 11 September; this species is apparently a scarce wanderer / migrant in west-central Senegal. An adult **Peregrine Falcon** *Falco peregrinus* at the Mamelles, Dakar, on 31 August is apparently an unseasonal record; the usual wintering birds were seen from 7 October onwards (*BP*).

On 15 September, a **Forbes's Plover** *Charadrius forbesi* was observed along the highway running through Niokolo-Koba National Park (=NP), near the bridge over the Niokolo-Koba River (Fig. 16; *SS* per *JR*); the species is considered a rare intra-African migrant in Senegal. An old record was received of a **European Golden Plover** *Pluvialis apricaria*—a rare vagrant—at Ngor, Dakar on 15 December 1998; both American *P. dominica* and Pacific Golden Plovers *P. fulva* were excluded at the time (*BP*). The fourth **Lesser Yellowlegs** *Tringa flavipes* for Senegal stayed along the Saloum River, between Keur Wally Ndiaye and Bandoukou, from 3 January until at least 12th (*cf.* photograph at https://senegalwildlife.wordpress.com/2015/03/13/shorebirds-hotspot-keur-waly-ndiaye-wetland/; the third was at the Kaolack saltpans in March 2013; *SC*); another was observed at Dakar Technopôle on 15 August (*BP*).

A **Short-eared Owl** *Asio flammeus* was photographed in Langue de Barbarie NP, in the north-west, on 15 November (*RBe*). A **Blue-spotted Wood Dove** *Turtur afer* was singing north of Popenguine, on the Petite Côte, south of Dakar, on 13 September, north of its known range (*BP*). In Niokolo-Koba NP, a **Shining-blue Kingfisher** *Alcedo quadribrachys* was photographed on 4 July (*JD*). Near the same park, a **Wahlberg's Honeybird** *Prodotiscus regulus* was reported next to Wassadou Camp on 30 January (*AL, IY & JA*).

The second **Rufous-rumped Lark** *Pinarocorys erythropygia* for Senegal was observed in Boundou Community Reserve on 10–12 November (Fig. 17; *JD*); the first, only recently reported, dates from February 1985 in nearby Niokolo-Koba NP. A **Greater Swamp Warbler** *Acrocephalus rufescens* was singing in mangroves at Somone Nature Reserve, between Dakar and Mbour, on 25 September; the population at Technopôle and other Niayes wetlands is now quite well known, but the distribution of this species further south is unclear (for a record from 2013 at Mbour, see http://www.oiseaux.net/photos/robert.balestra/rousserolle.des.cannes.1.html). A **Yellow White-eye** *Zosterops senegalensis* was seen at Pointe des Almadies, Dakar, on 7 October, well north of its known range (*BP*).

Seychelles

Reports received by Seychelles Bird Records Committee (SBRC) from the period June–November 2015 include the following. A **Common Kestrel** *Falco tinnunculus* on Denis on 29 November was the third record for the archipelago, whilst a juvenile **Wattled Starling** *Creatophora cinerea* on Aldabra on 24 May was the fifth (four of which were on Aldabra), with a **Black-winged Stilt** *Himantopus himantopus* at Île Persévérance on 1–8 November also being the fifth (Fig. 18).

A **Flesh-footed Shearwater** *Ardenna carneipes* was observed between Mahé and Praslin on 14 and 23 October (seven previous records). Single **Northern Shovelers** *Spatula clypeata* were on Desroches on 20 October, Aride on 30 October and Mahé on 2 November (ten records). On Mahé, single **Squacco Herons** *Ardeola ralloides* were at Providence on 2 November and Police Bay on 7 November (ten records). A **Little Egret** *Egretta garzetta* was on Denis on 25–27 October and a **Glossy Ibis** *Plegadis falcinellus* on Aride on 1 October (Fig. 19). **Oriental Pratincoles** *Glareola maldivarum* were reported from Denis on 19 October, Desroches on 22 October and Île Persévérance on


16


17


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Figure 16. Forbes's Plover / Gravelot de Forbes *Charadrius forbesi*, Niokolo-Koba National Park, Senegal, 15 September 2015 (Sitapha Souané)

Figure 17. Rufous-rumped Lark / Alouette à queue rousse *Pinarocorys erythropygia*, Réserve Naturelle Communautaire du Boundou, Senegal, 10 November 2015 (Jean Delannoy)

Figure 18. Black-winged Stilt / Échasse blanche *Himantopus himantopus*, Île Persévérance, Seychelles, 31 October 2015 (Adrian Skerrett)

Figure 19. Glossy Ibis / Ibis falcinelle *Plegadis falcinellus*, Aride, Seychelles, 1 October 2015 (Uzice Samedi)

Figure 20. Oriental Pratincole / Glaréole orientale *Glareola maldivarum*, Île Persévérance, Seychelles, 20 November 2015 (Adrian Skerrett)

Figure 21. Marsh Sandpiper / Chevalier stagnatile *Tringa stagnatilis*, Alphonse, Seychelles, 28 October 2015 (Ari Fernández)

Figure 22. White Wagtail / Bergeronette grise *Motacilla alba*, Île Persévérance, Seychelles, 19 November 2015 (Adrian Skerrett)

22–27 November (Fig. 20), whilst a **Collared Pratincole** *G. pratincola* was on Praslin on 21–22 October. A first-winter **Eurasian Oystercatcher** *Haematopus ostralegus* was found on Cosmoledo on 18 November (eight records), a **Common Snipe** *Gallinago gallinago* on Île Persévérance on 30–31 October, with two, possibly including the first bird, on 7 November, and three **Marsh Sandpipers** *Tringa stagnatilis* on Alphonse on 28 October (Fig. 21; 11 records).

A **Pacific Swift** *Apus pacificus* was noted on Desroches on 13–15 November (14 records). **Common Sand Martins** *Riparia riparia* were observed on Alphonse on 28–29 May and again on 14 June (one) and on Denis on 24–27 October (two), whilst a **Common House Martin** *Delichon urbicum* was on Cosmoledo on 14 November. Other passerine records include single **Yellow Wagtails** *Motacilla flava* on Alphonse on 12–16 October and on Aldabra on 5 November; three **White Wagtails** *M. alba* on Île Persévérance on 13–28 November (Fig. 22); a male **Common Redstart** *Phoenicurus phoenicurus* of the race *samamiscus* on Denis on 24 October; and a first-winter **Eurasian Golden Oriole** *Oriolus oriolus* on Denis on 12 November (per *AS*)

South Africa

The following records are mainly from the period July–December 2015. Noteworthy species seen in the waters south and west of Cape Point include **Wandering Albatross** *Diomedea exulans* (several in late June; one each in August and September; at least 12 in October; one in November), **Tristan Albatross** *D. (e.) dabbenena* (one on 6 October), **Southern Royal Albatross** *D. epomophora* (one in August), **Northern Royal Albatross** *D. (e.) sanfordi* (at least two in July; two in August; two in October), **Southern Fulmar** *Fulmarus glacialoides* (one in October), **White-headed Petrel** *Pterodroma lessoni* (one in late June), and **Spectacled Petrel** *Procellaria conspicillata* (one in August; three in October; two in November; one in December).

Species observed in the waters south of Durban, KwaZulu-Natal, include **Black-bellied Storm-petrel** *Fregeta tropica* (seven in August; one in October), **Soft-plumaged Petrel** *Pterodroma mollis* (one in July), **Barau's Petrel** *P. baraui* (one in September; two in October), **Antarctic Prion** *Pachyptila desolata* (several in July and August), **Sooty**

Tern *Onychoprion fuscatus* (three in September) and **Red Phalarope** *Phalaropus fulicarius* (one on 8 November).

A **Soft-plumaged Petrel** with a broken wing was found on Shelley Beach, near Port Shepstone, KwaZulu-Natal, on 25 July and taken into care. A tropicbird seen from East Head Café in Knysna, Western Cape, on 15 November, was observed again on 22 November and identified as a **Red-billed Tropicbird** *Phaethon aethereus*, a very rare species in the subregion. An exhausted **Red-tailed Tropicbird** *P. rubricauda* was picked up in Port Elizabeth, Eastern Cape, on 5 December and taken into care, whilst a **White-tailed Tropicbird** *P. lepturus* was located at Three Sisters, Eastern Cape, on 10 December. **Australian Gannets** *Morus serrator* were present on Bird Island in Algoa Bay, Eastern Cape, from mid August until at least early November (up to two) and on Malgas Island in Saldanha Bay, Western Cape, from mid August until at least late November. An immature **Greater Frigatebird** *Fregata minor* flew along Shelley Beach, KwaZulu-Natal, on 8 September.

A male **Harlequin Quail** *Coturnix delegorguei* was observed in Glenwood, KwaZulu-Natal, in mid September. **Fulvous Whistling Ducks** *Dendrocygna bicolor* were in Western Cape at Worcester Sewage Works on 26 September, and at Paarl Bird Sanctuary on 31 October—far west of the species' normal range. A **Great Bittern** *Botaurus stellatus* was reported from Himeville, KwaZulu-Natal, on 11 November. In Northern Cape, a **Squacco Heron** *Ardeola ralloides* was found near Twee Rivieren in Kgalagadi Transfrontier Park on 26 August—a very unusual species for the area. Up to two **Green-backed Herons** *Butorides striata* stayed in the East London area, Eastern Cape, from 13 July until at least 16 August; this is an uncommon species in the area. In Mpumalanga, a **Slaty Egret** *Egretta vinaceigula* was reported along the Crocodile River at Malelane Gate on 5 October, and flying over Komatipoort on 15 October. **Goliath Herons** *Ardea goliath* were observed in Western Cape at Plettenberg Bay from 2 July until at least 10 November, at Wellington Waste Water Works on 14 July, along the Berg River, Velddrif, from 9 August until at least 5 September, and at Verlorenvlei, Elands Bay, on 10 September. In the same province, two **Yellow-billed Storks** *Mycteria ibis* were found at Voelvlei near Vleesbaai, on 7 December.

The first **European Honey Buzzard** *Pernis apivorus* of the season was recorded in Pretoria, Gauteng, on 21 September; subsequently, individuals were reported throughout the period from Limpopo (two), North West Province (two), Gauteng (at least 13), Mpumalanga (one), KwaZulu-Natal (two) and Western Cape (four). A satellite-tagged female that was in the Caprivi Strip, Namibia, in early November, crossed Botswana and remained south of Johannesburg, Gauteng, from 8 November until at least 16th. An immature **White-backed Vulture** *Gyps africanus* was with Cape Vultures *G. coprotheres* at a carcass near Kgomo Kgomo bridge, North West Province, on 22 August. Camera-trap images from Blouberg Nature Reserve, Limpopo, revealed that a **Rüppell's Vulture** *G. rueppelli* again visited a waterhole on 21 July; probably the same individual subsequently bred (apparently with a Cape Vulture) and was observed at its nest until late November. An adult **Palm-nut Vulture** *Gypohierax angolensis* remained at Swellendam, Western Cape, from late August until at least early October. Out-of-range **Brown Snake Eagles** *Circaetus cinereus* were noted at Gondwana Game Reserve, near Mossel Bay, Western Cape, on 6 September, and at East London, Eastern Cape, on 4 December. **Bateleurs** *Terathopius ecaudatus* were seen south of Mooreesburg, Western Cape, on 17 November, at Kariega Game Reserve, Eastern Cape, on 24 and 27 November, and east of Bathurst, Eastern Cape, on 28 November. **Pallid Harriers** *Circus macrourus* were reported from North West Province (an immature male north of Faan Meintjies Nature Reserve, near Klerksdorp, on 3 November), Northern Cape (one in Kgalagadi Transfrontier Park on 12 November) and on the border between Northern and Western Cape (a female flying towards Murraysburg on 22 November). A male **Montagu's Harrier** *C. pygargus* was near Graaff-Reinet, Eastern Cape, on 23 November. At least two **Western Marsh Harriers** *C. aeruginosus*, an immature male and a female, remained at Marievale Bird Sanctuary, near Nigel, Gauteng, in November, with at least one still present in early December. Up to two **Dark Chanting Goshawks** *Melierax metabates* stayed in Zululand Rhino Reserve from late August until at least late November, with one in Mkhuze Game Reserve on 21 October; this is a rare species in KwaZulu-Natal with only *c.*20 previous records. Single **Pale Chanting Goshawks** *M. canorus*—also unusual for KwaZulu-Natal—were noted in Weenen Game Reserve on 12 July and 25 September. A **Lesser Spotted Eagle** *Clanga pomarina* was at Zaagkuilsdrift Road, North West Province, on 28 November. A pair of **Wahlberg's Eagles** *Hieraaetus wahlbergi* on a farm *c.*15 km west of Grahamstown, Eastern Cape, on 2–6 October, is probably the first record for the province. **Ayres's Eagles** *H. ayresii* were reported from Kruger National Park =(NP), Mpumalanga, on 27 August (one), the Weskoppies area of Pretoria, Gauteng, from late September until December (up to five), Richards Bay, KwaZulu-Natal, on 5 December (one), and Empangeni, KwaZulu-Natal, on 8 December (one). At least three **Long-crested Eagles** *Lophaetus occipitalis* frequented the George area, Western Cape, from late July until at least late November, indicating that the species is probably resident. A **Greater Kestrel** *Falco rupicoloides* was observed in Kruger NP, Mpumalanga, on 25 July. **Red-footed Falcons** *F. vespertinus* were seen near Rust de Winter, Limpopo, on 3 November (a male) and 28

November (one), and at Midmar Game Reserve, KwaZulu-Natal, on 14–15 November (a female), whilst **Sooty Falcons** *F. concolor* were near Bela Bela, Limpopo, on 21–22 November, in Sodwana, KwaZulu-Natal, on 28 November and in Phinda Private Game Reserve, KwaZulu-Natal, on 4 December.

A **Spotted Crake** *Porzana porzana* was discovered at Franklin Marsh, near Kokstad, KwaZulu-Natal, on 29 November and a **Baillon's Crake** *Zapornia pusilla* in De Hoop Nature Reserve, Western Cape, on 17 September. An **African Crake** *Crex egregia* was seen at Simbithi Estate, north of Ballito, KwaZulu-Natal, on 19 July—an interesting winter record of a species that is quite unusual in this part of the country. An adult **Allen's Gallinule** *Porphyrio alleni* was picked up in Bellville, Western Cape, far from its known range, on 24 August, and taken into care; it was released at Strandfontein Sewage Works on 27 August and was last seen there on 12 October. Also out of range was a juvenile **Allen's Gallinule** *c.*2 km from Urikaruss in Kgalagadi Transfrontier Park, Northern Cape, on 6 September. A **Lesser Moorhen** *Gallinula angulata* remained at Darvill Bird Sanctuary, Pietermaritzburg, KwaZulu-Natal, until at least 4 July. A **Wattled Crane** *Bugeranus carunculatus* and a **Grey Crowned Crane** *Balearica regulorum* were with a flock of Blue Cranes *Anthropoides paradiseus* near Devon, Mpumalanga, on 19–28 July, whilst three **Grey Crowned Cranes** were at Ezemvelo Nature Reserve, Gauteng, on 10 October.

A female **African Finfoot** *Podica senegalensis* stayed at Rietvlei Nature Reserve, Gauteng, from mid October until December. Single **Lesser Jacanas** *Microparra capensis* were noted in KwaZulu-Natal, at the Illovo River Lagoon on 11 August and in Port Edward on 1–4 September, and Mpumalanga, at TSB Komatidraai sugarcane farm on 28–29 November, with at least two pairs near Lothair on 5–6 December. A **Eurasian Oystercatcher** *Haematopus ostralegus* was still present near Centani, Eastern Cape, on 2 July. Two **Temminck's Coursers** *Cursorius temminckii* were located west of Humansdorp, Eastern Cape, on 11 August—an unusual species for the province. Up to two **Collared Pratincoles** *Glareola pratincola* stayed at Mkhombo Dam, Mpumalanga, from 26 September until at least 4 October. In Western Cape, a **Lesser Sand Plover** *Charadrius mongolus* was at West Coast NP in July–August, whilst a **Greater Sand Plover** *C. leschenaultii* was located in Plettenberg Bay, Western Cape, on 10 November. **Caspian Plovers** *C. asiaticus* were reported from Mpumalanga (Mkhombo Dam, from 26 September until at least 7 December, with up to 11 on 7–11 October; at least five north of Satara in Kruger NP on 12 November), KwaZulu-Natal (two in Phinda Private Game Reserve on 26 October), Northern Cape (one *c.*80 km north-west of Loeriesfontein on 28 October), Western Cape (one at Velddrif on 10 November) and Limpopo (at least eight in Kruger NP on 18 November). In Western Cape, an **American Golden Plover** *Pluvialis dominica* was at De Mond Nature Reserve, near Arniston, on 12 November and a **Pacific Golden Plover** *P. fulva* at Gouritzmond from 17 October until early December. A **Long-toed Lapwing** *Vanellus crassirostris* was reported from Ngwenya Lodge, on the Crocodile River, Mpumalanga, in August; the last South African record may have been the individual in Kgalagadi Transfrontier Park in February 2006. Southern Africa's 25th **White-rumped Sandpiper** *Calidris fuscicollis* was discovered at Strandfontein Sewage Works, Western Cape, on 1 October. Two **Pectoral Sandpipers** *C. melanotos* were at Marievale Bird Sanctuary, Gauteng, on 9–13 August, with another there from 23 November until at least 10 December. A **Black-tailed Godwit** *Limosa limosa* stayed at Mkhombo Dam, Mpumalanga, from July until at least 7 December; three were there on 8 November, and at least two until 7 December. In KwaZulu-Natal, a **Common Redshank** *Tringa totanus* was at St. Lucia estuary on 20 November. One of the first **Green Sandpipers** *T. ochropus* of the season was seen in Kruger NP, Mpumalanga, on 18 September; several were subsequently reported from KwaZulu-Natal, Gauteng and Limpopo, with some remaining at the same location for several weeks. Up to two **Ruddy Turnstones** *Arenaria interpres* stayed at Mkhombo Dam, Mpumalanga, from 26 September until at least 11 October; one was at Marievale Bird Sanctuary, Gauteng, on 9 November. A **Red-necked Phalarope** *Phalaropus lobatus* remained at the Kliphoek Salt Pans in Velddrif, Western Cape, from 8 August until 3 December; it was joined by a second from 25 October onwards.

A **Franklin's Gull** *Leucophaeus pipixcan* in full breeding plumage at St. Lucia estuary, KwaZulu-Natal, was still present on 4 July. A long-staying **Lesser Black-backed Gull** *Larus fuscus* in Durban harbour, KwaZulu-Natal, was also still present in July and remained there until at least mid October; an immature stayed at Mkhombo Dam, Mpumalanga, from 1 August until at least 7 December, with another near Glen Austin Pan, Gauteng, on 13 September. A **Gull-billed Tern** *Gelochelidon nilotica* was photographed at Lake Shengeza, KwaZulu-Natal, on 28 July; this is still a rather rare species in southern Africa. An **Elegant Tern** *Thalasseus elegans* was found at the tern roost at Laaiplek near Velddrif, Western Cape, on 21 December. Also of interest was a **Roseate Tern** *Sterna dougallii* at the tern roost at St. Lucia estuary, KwaZulu-Natal, on 25–26 July. At least two **Sooty Terns** were on Bird Island in Algoa Bay, Eastern Cape, on 12 August, whilst another was, once again, present at St. Lucia estuary, from 29 August until at least 9 September. An **African Skimmer** *Rynchops flavirostris* was reported from Vaalkop Dam, North West Province, on 14–15 November.

A **Madagascar Cuckoo** *Cuculus rochii* was calling *c.*8 km west of Biyamithi, Kruger NP, on 28 November—possibly the same individual that has returned to this

area for several successive seasons. Another was photographed at Korongwe Private Game Reserve near Hoedspruit, Limpopo, on 16 December. A juvenile **Common Cuckoo** *C. canorus* was at Zaagkuilsdrift Road, North West Province, on 28 November, whilst another was killed in Western Cape when it flew into a window in Knysna, on 9 December. A **Pel's Fishing Owl** *Scotopelia peli* was located at Groot Krokodil Resort, *c.*70 km north of Brits, Limpopo, on 19 July, well outside its normal range. In the Karoo region, a **Verreaux's Eagle Owl** *Bubo lacteus* stayed for its fourth year on a farm near Murraysburg, Western Cape (reported on 1 November). A **Pearl-spotted Owlet** *Glaucidium perlatum* remained at Beaufort West, Western Cape, from September until at least early November; another was reported from Hamerkop Bird Sanctuary, Florida, Gauteng, on 7 November. A **Marsh Owl** *Asio capensis* was photographed at Kieliekrankie in Kgalagadi Transfrontier Park, Northern Cape, on 11 July. A **Pennant-winged Nightjar** *Caprimulgus vexillarius* was observed just west of Tau Lodge in Madikwe Game Reserve, North West Province, on 19 October. In Western Cape, an **African Palm Swift** *Cypsiurus parvus* was reported from Harold Porter Botanical Gardens, in Betty's Bay, on 17 October, whilst two were investigating palm trees in Plattekloof on 24–27 October.

A **Half-collared Kingfisher** *Alcedo semitorquata* on a farm near Robertson on 1–5 July is a remarkable record so close to Cape Town. An **African Pygmy Kingfisher** *Ispidina picta* in Kgalagadi Transfrontier Park, Northern Cape, on 21 October, was well outside its normal range. In early September, **White-fronted Bee-eaters** *Merops bullockoides* were located in Western Cape near Three Sisters and Calitzdorp. **Blue-cheeked Bee-eaters** *M. persicus* were found in Western Cape, at Stillbaai Sewage Ponds on 24 November (three), and in Eastern Cape, near Colchester on 28 November (three) and in Nahoon Estuary Reserve, East London, from 28 November until at least 6 December (one). A **Broad-billed Roller** *Eurystomus glaucurus* was in Kenneth Stainbank Nature Reserve, Durban, KwaZulu-Natal, on 11 October, with another in Madikwe Game Reserve, North West Province, on 5 December—apparently the first for the reserve in at least five years. A **Common Scimitarbill** *Rhinopomastus cyanomelas* was seen between East London and Stutterheim, Eastern Cape, on 29 October, well outside its usual range. A **Southern Ground Hornbill** *Bucorvus leadbeateri* at Kwandwe Private Game Reserve, Eastern Cape, on 5 October was a quite westerly record. Also of interest were three **African Grey Hornbills** *Tockus nasutus* reported from Zululand Rhino Reserve, near Mkhuze, KwaZulu-Natal, on 7 July, with one around Orania, Northern Cape, on 14 July; this species appears to be spreading south-westwards. A **Bennett's Woodpecker** *Campethera bennettii* was at Zululand Rhino Reserve, KwaZulu-Natal, on 12 September—an unusual southerly record.

An immature **Red-rumped Swallow** *Cecropis daurica* was mist-netted north of Lephalale, Limpopo, on 16 December (Fig. 23); this is a very rare vagrant to the southern African subregion, with just a few previous records, all from Zimbabwe. In Kgalagadi Transfrontier Park, Northern Cape, a **Yellow Wagtail** *Motacilla flava* was noted on 20 October and a **Long-billed Pipit** *Anthus similis* on 12 November. **Short-tailed Pipits** *A. brachyurus* were on view again near Verena, Gauteng, on 13 November; this species is hard to find anywhere. A **Tree Pipit** *A. trivialis* at Perdekloof Reserve, near Cape Point, on 3–12 August, was the first for Western Cape, with the nearest known records from Lüderitz, in Namibia, at least 1,000 km to the north.

A **Collared Palm Thrush** *Cichladusa arquata* first seen south of Lower Sabie in Kruger NP, Mpumalanga, on 20 May—well south of its normal range—was present until at least 30 July. A **Thrush Nightingale** *Luscinia luscinia* was reported *c.*25 km outside Hoedspruit, Limpopo, on 15–31 August—an unusual time of the year: most arrive from late December and depart in late March. A **Sickle-winged Chat** *Cercomela sinuata* was located at Suikerbosrand Nature Reserve, Gauteng, on 10 August. A **Common Whitethroat** *Sylvia communis* was between Williston and Van Wyksvlei, Northern Cape, on 7 December—an unusual record for the area. In Northern Cape, a **Grey Tit Flycatcher** *Myioparus plumbeus* in Augrabies NP, on 24 November, is a very westerly record. A **Bush Blackcap** *Lioptilus nigricapillus* was at Suikerbosrand Nature Reserve, Gauteng, on 1–8 August. A **Gurney's Sugarbird** *Promerops gurneyi c.*10 km south of Grahamstown, Eastern Cape, on 12–13 September, was well out of range. A pair of **Scarlet-chested Sunbirds** *Chalcomitra senegalensis* stayed in a garden in Bulugha, *c.*40 km north-east of East London, from 26 September until at least mid October—a remarkable record for Eastern Cape.

A **Lesser Grey Shrike** *Lanius minor* was *c.*5 km east of Riversdale, Western Cape, on 31 July. Two

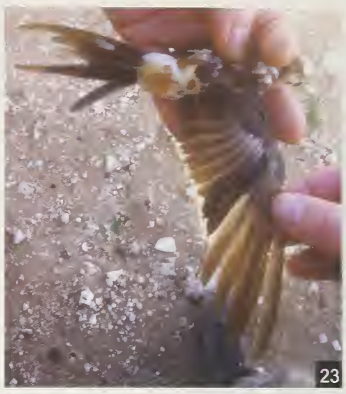

Figure 23. Immature Red-rumped Swallow *Cecropis daurica*, Lephalale environs, Limpopo, South Africa, 16 December 2015 (Malcolm Wilson)

Hirondelle rousseline *Cecropis daurica* immature, environs de Lephalale, Limpopo, Afrique du Sud, 16 décembre 2015 (Malcolm Wilson)

Cape Glossy Starlings *Lamprotornis nitens* were observed in Karoo NP, Western Cape, on 8 August, whilst single **Violet-backed Starlings** *Cinnyricinclus leucogaster* were reported from Eastern Cape in Beacon Bay, East London, on 18 July, Grahamstown on 31 October, Bushman Sands Game Reserve, Alicedale, on 7 December, and Queenstown on 8 December. Two **Common Mynas** *Acridotheres tristis* at Orania, Northern Cape, on 14 July, showed that this species is still spreading. In KwaZulu-Natal, a **Red-billed Buffalo Weaver** *Bubalornis niger* was reported from Pongola Nature Reserve on 21 October, with another in Zululand Rhino Reserve on 2 December. Also well outside their normal range were a female **Violet-eared Waxbill** *Granatina granatina* at Imfolozi Game Reserve, KwaZulu-Natal, on 2 August, a **Black-headed Canary** *Serinus alario* at Sani Pass, KwaZulu-Natal, on 7 September and 13 November, and a **Cinnamon-breasted Bunting** *Emberiza tahapisi* on Table Mountain, Western Cape, on 10–12 July (*all* per *TH*).

Tanzania

Mottled Spinetail *Telacanthura ussheri* was recorded on Pemba Island on 8 September 2015 and **Yellow-vented Eremomela** *Eremomela flavicrissalis* at Ndutu Lodge, in Ngorongoro Conservation Area, on 3 October (*MM*).

Togo

In five weeks spent in the north, east and south-east in late April, September–October and December 2015, the following records appear to be of interest (*cf.* Cheke, R.A. & Walsh, J.F. 1996. *The Birds of Togo.* BOU Check-list no. 14). In the north, **Stripe-breasted Flufftail** *Sarothrura boehmi* was found not uncommonly in moist grassland, with two singing in the Oti floodplain, south of Mango, on 18 September (one tape-recorded) and three at two sites 1–2 km south-west of Naboulgou on 19 September; the first records for the country were from Landa-Pozanda in the Kara Valley in 2009 (J. & S. Merz *in Bull. ABC* 17: 213). **Lesser Moorhen** *Gallinula angulata,* previously considered as a probable passage migrant, was proven to breed in Togo, as small dependent chicks were observed at two places in the Oti floodplain near Mandouri on 16 September. A juvenile **Levaillant's Cuckoo** *Clamator levaillantii* was begging from a group of Brown Babblers *Turdoides plebejus* on 1 December near the Kéran River; another juvenile was begging from a group of the same babbler species on the Oti River near Mandouri, and was joined momentarily by an older juvenile, which was chased by a babbler. **Yellowbill** *Ceuthmochares aereus* was found to breed in luxuriant riparian forest on the Kéran River near Naboulgou, a new locality and the northernmost to date—a pair was alarm-calling persistently and carrying small prey on 13 and 18 September. **Rock-loving Cisticola** *Cisticola aberrans* was encountered frequently in all rocky areas near and west of Dapaong (new localities). **Yellow Penduline Tit** *Anthoscopus parvulus*—not previously recorded in northern Togo—was discovered in several remnants of fairly dense woodland from near Naboulgou, in Galangachi and Barkoissi Forest Reserves north to near Mandouri. **Red-billed Quelea** *Quelea quelea*—apparently unrecorded from Togo until January 2010 (*Bull. ABC* 18: 241)—was locally numerous north of 10°N, with hundreds feeding in floodplains and coming to drink in rivers and ponds from Mandouri to Dapaong, Mango and Koumongou on 2–7 December, including many still moulting out of breeding dress (Fig. 24). Still in the north, the first **Jambandu Indigobird** *Vidua raricola* for Togo was identified on 6 December near Koumongou: its song included clear imitations of the calls of **Zebra Waxbill** *Amandava subflava.*


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Figure 24. Red-billed Queleas *Quelea quelea* feeding on sorghum, near Koumongou, Togo, 6 December 2015 (Robert J. Dowsett)

Unlike Kéran National Park, which is now almost totally converted to farmland, the Faunal Reserve of Abdoulaye, south-east of Sokode, is still extant, albeit degraded by fires, and some large patches of semi-evergreen forest hold an interesting avifauna, so far undescribed, including **African Barred Owlet** *Glaucidium capense* (found also near Bagou, south of the reserve, and in adjacent western Benin only days earlier—all first records east of the Mono River) and other forest species such as **Ahanta Francolin** *Francolinus ahantensis*, **Black-throated Coucal** *Centropus leucogaster*, **Black-and-white-casqued Hornbill** *Bycanistes subcylindricus* (apparently the only population of this species left in Togo; Fig. 25), **Piping Hornbill** *B. fistulator*, **Baumann's Greenbul** *Phyllastrephus baumanni*, **Grey-headed Bristlebill** *Bleda*

canicapillus, **Forest Robin** *Stiphrornis erythrothorax* and **Black-winged Oriole** *Oriolus nigripennis* (19–20 October). Noteworthy species from adjacent woodland include **Black-shouldered Nightjar** *Caprimulgus* (*pectoralis*) *nigriscapularis*, **Golden-tailed Woodpecker** *Campethera abingoni* (only discovered in Togo in 2010, on the Kéran River: *Bull. ABC* 18: 241), **Yellow-winged Pytilia** *Pytilia hypogrammica* and **Togo Paradise Whydah** *Vidua togoensis*. The most unexpected record was a pair of **Brown-necked Parrots** *Poicephalus robustus* on 20 October—the first observation in the country since a specimen was collected at Bismarckburg in the 19th century (Reichenow, A. 1892, *J. Ornithol.* 40: 234).

Togodo-Sud Faunal Reserve, in the south-east, left unexplored until recently, was visited on its eastern border from Benin (Mono River) on 22–24 March and western border (near Dévé) on 23–26 April. Despite much illegal logging, forest remnants still support a rich avifauna, including **Ahanta Francolin**, **Western Bronze-naped Pigeon** *Columba iriditorques*, **Black-throated Coucal**, **Blue-throated Roller** *Eurystomus gularis*, **Piping Hornbill** (numerous and breeding), **Buff-spotted Woodpecker** *Campethera nivosa*, nine forest greenbuls including **Baumann's** and **White-throated** *Phyllastrephus albigularis*, **Violet-backed Hyliota** *Hyliota violacea*, **Tit-hylia** *Pholidornis rushiae*, **Shrike Flycatcher** *Megabyas flammulatus*, **Red-cheeked Wattle-eye** *Dyaphorophyia blissetti*, **Brown Illadopsis** *Illadopsis fulvescens*, **Puvel's Illadopsis** *I. puveli*, and the only viable population in the country of **Sabine's Puffback** *Dryoscopus sabini*. Several Guineo-Congolian forest species were also found in forest remnants between Abdoulaye and Togodo, e.g. on the Mono at Kpessi, on the Ogou River near Elavagnon and the Khra River east of Wahala, such as **Ahanta Francolin**, **Black-throated Coucal** (everywhere except Khra River) and various greenbuls including **Baumann's**. Still in the south, a **Willcocks's Honeyguide** *Indicator willcocksi* was observed at close range in a small patch of riparian forest on the Haho River near Lomé on 28 October—a range extension from the western hills (*Bull. ABC* 18: 241). A pair of **Long-legged Pipits** *Anthus pallidiventris* was photographed at Adamé, on the lower Mono River; this is a new species for Togo, which is locally common on the coast on the Benin side of the border. The large *Typha* marsh north-east of Aného holds a large population of **Little Rush Warblers** *Bradypterus baboecala*, estimated at hundreds of singing birds/pairs; the species was discovered in Togo as recently as 2002, on the Zio River (G. Selfe *in Bull. ABC* 10: 51). **Black-faced Quailfinches** *Ortygospiza atricollis* were found on the nearly bare shores of Anié dam, a new locality. A population of **Cameroon Indigobirds** *Vidua camerunensis* was observed on the Ogou River at Elavagnon, in association with **Blue-billed Firefinch** *Lagonosticta rubricata*, both species singing in the same trees, with the indigobirds imitating songs and calls of the firefinch, on 22–23 October; this indigobird had been previously recorded only from the Kara region (*FD-L & RD*).


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Figure 25. Black-and-white-casqued Hornbill / Calao à joues grises *Bycanistes subcylindricus*, Abdoulaye Faunal Reserve, Togo, 20 October 2015 (Robert J. Dowsett)

Uganda

Records for the period May–August 2015 include the following. During waterfowl counts on 28 July, 1,270 **Intermediate Egrets** *Ardea intermedia* and 2,014 **Glossy Ibises** *Plegadis falcinellus* were recorded at the Kibimba rice scheme, whilst the first **Shoebill** *Balaeniceps rex* for the site was also noted. In Queen Elizabeth National Park (=NP), two **Forbes's Plovers** *Charadrius forbesi* were observed on the Kasenyi track on 21 May and a single at Ishasha on 23 May; these are the sixth and seventh records for Uganda. Seven **Brown-chested Lapwings** *Vanellus superciliosus* were at the Airstrip Ponds near Mutukula, Rakai District, on 16 July. Six early **European Bee-eaters** *Merops apiaster* were with eight late Madagascar Bee-eaters *M. superciliosus* in Toro-Semliki Wildlife Refuge on 15 August. A single **Southern Carmine Bee-eater** *M. nubicoides* was found amongst 100 Northern Carmine Bee-eaters *M. nubicus* in Murchison Falls NP on 18 July. A **Black-throated Barbet** *Tricholaema melanocephala* was at Lake Opeta on 31 July. At Fort Portal, a **Least Honeyguide** *Indicator exilis* was trapped on 6 August and a **Bamboo Warbler** *Bradypterus alfredi*—a rare and little-known species—at Tooro Botanical Gardens on 29 August. Three pairs of **Black-backed Cisticolas** *Cisticola eximius* were at Lake Opeta on 26 August, with an **Emin's Shrike** *Lanius gubernator* at Awalukok, near Lira, on 2 July. During three five-day surveys of eastern Uganda in April, July and August, in the core area of **Fox's Weaver** *Ploceus spekeoides*, a team from *Nature*Uganda was unable to locate even a single individual of this poorly known and Near Threatened species. Four **Cuckoo Finches** *Anomalospiza imberbis* were recorded at Kabaale, near Hoima, on 20 August (*RS*).

Zambia

Two **White-throated Bee-eaters** *Merops albicollis* were recorded on Mutondwe, an island in Lake Tanganyika, north of Mpulungu, on 17 October 2015, with one still present on 28 October (*JHe & KF*); Dowsett *et al.* (2008. *The Birds of Zambia*) mention just one certain record for Zambia, of up to six birds

at Uningi Pans, from 11 December 1999 to 13 January 2000.

Zimbabwe

The following records are from the period July–December 2015. A pair of **Common Ostriches** *Struthio camelus* with 13 chicks was seen at Ngweshla Pan, Hwange National Park (=NP) on 27 September. Eleven **Cape Teals** *Anas capensis* were found at Aisleby, near Bulawayo, on 19 July, with another 12 at the Salt Pans, Hwange NP, on 25 July. A **Great White Pelican** *Pelecanus onocrotalus* was with a **Lesser Flamingo** *Phoeniconaias minor* at Tembahata Pan, Gona re Zhou NP on 25 October, with another seven at Hideaway, Lake Manyame, on 26 July. Single **Rufous-bellied Herons** *Ardeola rufiventris* were observed at Olive Beadle Camp, Hwange District, on 30 June and at Lazy Bay, Hunyani Estate, Lake Manyame, on 25 October; this species is not often seen on dams in the highveld. In July, 40 **Saddle-billed Storks** *Ephippiorhynchus senegalensis* were counted at 16 sites, including 20 at Muchaniwa Pan, Chiredzi.

Raptor sightings include a **European Honey Buzzard** *Pernis apivorus* at the Umfurudzi River, Shamva, on 21 November; a **Lesser Spotted Eagle** *Clanga pomarina* at the Angwa River, Masoka, on 30 November; a **Verreaux's Eagle** *Aquila verreauxii* scavenging a dead Plains Zebra *Equus quagga* at Cawston Block, Gwanda, on 3 October; a **Palm-nut Vulture** *Gypohierax angolensis* at Tembahata Pan, Gona re Zhou NP, on 17 September; and a female **Western Marsh Harrier** *Circus aeruginosus* on Art Farm, Harare, on 28 November. Five arrival dates for **Osprey** *Pandion haliaetus* were noted, on 1–8 October; other records included four at Palm Bay, Kariba (date unspecified), five at Mazwikadei Dam, Zwimba, on 20 November, and five at Mteri Dam, Chiredzi, on 1 December. An **Eleonora's Falcon** *Falco eleonorae* was observed near the Botanic Garden, Christon Bank, Mazowe, on an unspecified date; although the species does not figure on the Zimbabwe list, it has been reported several times in the past, but to date no photographs have been obtained.

Noteworthy wader records include 11 **Long-toed Lapwings** *Vanellus crassirostris* at Bream Farm, Kariba, on 15 July; seven **Greater Painted-snipes** *Rostratula benghalensis* at Mazowe Dam on 1 August; a **Eurasian Curlew** *Numenius arquata* at Ndungu 2 Camp, Mana Pools NP (date unspecified); *c.*10 **African Snipe** *Gallinago nigripennis* at Rainham Farm Dam, Harare, on 29 November (per *DR-G*); and a **Green Sandpiper** *Tringa ochropus* in Mana Pools NP in early November (per *TH*). **Caspian Terns** *Hydroprogne caspia*—rare visitors—were seen with White-winged Terns *Chilidonias leucopterus* at Trader Horn Creek, Lake Chivero, on 26 November. A pair of **African Skimmers** *Rynchops flavirostris* was at Nottingham Estate, Beitbridge, on 16 July.

In Gona re Zhou NP, a flock of 60 **Brown-headed Parrots** *Poicephalus cryptoxanthus* was observed at Mwenezi on 29 June, and a flock of 25 **Brown-necked** (Grey-headed) **Parrots** *P. robustus fuscicollis* at Manawala on 30 September. A **Barred Long-tailed Cuckoo** *Cercococcyx montanus* was noted at the Umfurudzi River, Shamva District, on 21 November, outside its known range. Also there, a **Racket-tailed Roller** *Coracias spatulata* was chasing a Verreaux's Eagle Owl *Bubo lacteus*. A **Pel's Fishing Owl** *Scotopelia peli* was seen on Mahenye Island, Chilo Gorge, in the south-east lowveld, on 15 September (per *DR-G*).

In Hwange NP, a **Collared Palm Thrush** *Cichladusa arquata* was in the Linkwasha Concession, in the eastern part of the park, in early August (a slight range extension), whilst a male **Northern Wheatear** *Oenanthe oenanthe* was on the Ngamo Plain, in the south-east, from 1 July until at least 12 August (per *TH*). A male **Miombo Rock Thrush** *Monticola angolensis* appeared in the Mukuvisi Woodlands, Harare, on 1 November; the species had not been seen at this well-monitored site for eight years. On the same day a nest with two eggs was found in Gosho Park, near Marondera (per *DR-G*).

Records were collated by Ron Demey from contributions supplied by Juan C. Albero (JA), Gary Allport (GA), Rubén Barone (RB), Rafa Benjumea (RBe), Karin Beulink (KB), Cameron Blair (CB), Bruno Boedts (BB), Mark van Boekel (MvB), Joost Brouwer (JB), Hugh Buck (HB), Kees Camphuysen (KC), Bernard Claude (BC), Simon Cavailles (SC), Jean Delannoy (JD), Robert J. Dowsett (RD), Françoise Dowsett-Lemaire (FD-L), Mark Frazier (MF), Karoline Fritzsche (KF), E. García del Rey (EG), G. García (GG), Tisha Greyling (TG), Trevor Hardaker (TH), Abdoulaye Harouna / Noé Conservation (AH), Stratton Hatfield (SH), Jonathan Henshaw (JHe), Jens Hering (JHr), Jos Hooijmeijer / Bureau Altenburg & Wymenga (JH), Ross Hughes (RH), Benoit Janssens (BJ), Barbie Kusserow (BK), Tim Kusserow (TK), Marc Languy (ML), Abdou Lô (AL), Johannes & Sharon Merz (JM & SM), Zelalem Haile Michael (ZM), Michael Mills (MM), Will Moon (WM), Mark Muller (MM), Bram Piot (BP), Håkan Pohlstrand (HP), Thomas Rabeil / Sahara Conservation Fund (TR), N. Rankine (NR), David Rockingham-Gill (DR-G), Dominic Rollinson (DR), John Rose (JR), E. Sacramento (ES), Marten Sikkema / Bureau Altenburg & Wymenga (MS), Lionel Sineux (LS), Roger Skeen (RS), Adrian Skerrett (AS), Sitapha Souané / GIE des Guides du Niokolo-Koba (SS), D. Trujillo (DT), Tim Wacher (TW), Ian White (IW), Malcolm Wilson (MW), Ignacio Yúfera (IY), Martin Zimmerli (MZ), Leo Zwarts / Bureau Altenburg & Wymenga (LZ), and from Dutch Birding, sa-rarebirdnews@googlegroups.com, www.azoresbirdsightings.blogspot.com, www.madeirabirds.com and moroccanbirds.blogspot.com.

Contributions for Recent Reports can be sent to Ron Demey, Walter Thijsstraat 9, B-3500 Hasselt, Belgium and (preferably) by e-mail: rondemey1@gmail.com or recent_reports@africanbirdclub.org

Reviews

Several books reviewed in the *Bulletin*, and many others, including the major African field guides and avifaunas, can be purchased via the African Bird Club website from WildSounds. The Club receives a donation for its Conservation Fund for every item purchased via the Books and Media Sales page. Click the 'Buy Now' button by the relevant book to check the latest price, purchase the item and help us to protect Africa's birds.

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Plusieurs livres analysés dans le *Bulletin*, et beaucoup d'autres, parmi lesquels les guides et avifaunes les plus importants, peuvent être achetés via le site web de l'African Bird Club auprès de WildSounds. Pour chaque article acheté via la page « Book and Media Sales », le Club reçoit une donation pour son Fonds pour la Conservation. Cliquez sur l'onglet 'Buy Now' à côté de l'article recherché afin de vérifier le dernier prix, et aidez-nous à protéger les oiseaux africains en l'achetant.

Extinct Madagascar: Picturing the Island's Past

Steven M. Goodman and William L. Jungers, with plates by Velizar Simeonovski, 2014. University of Chicago Press, Chicago & London, UK. 296 pp, 21 colour plates, 87 halftone figures, 12 tables. Hardback. ISBN 978-0-226-14397-2. UK£31.50.

This new publication by Steven Goodman and William Jungers recreates the extraordinary fauna and environments that once occurred in Madagascar during the past 2,500 years. Part 1, entitled 'Madagascar in perspective: past and present', deals with the history of the island, including its geology and palaeontology, dating the past, natural climate change and human colonisation. Part 2, entitled 'Case studies', examines the various fossil localities so far discovered on Madagascar, and recreates in detail the fauna and palaeo-environment of these particular sites based on subfossil evidence.

Madagascar, the fourth largest island in the world, harbours one of the highest concentrations of endemism on earth. Our knowledge of modern Madagascan faunas and ecosystems is comparatively well known, but this represents only half of the story. The authors take the reader on a journey back in time to reveal the island's past ecosystems. Elephant birds (Aepyornithiformes), the heaviest birds ever to have lived, occurred alongside the giant fossa *Cryptoprocta spelea*, a leopard-sized carnivore that dwarfed its surviving relative. Giant tortoises *Aldabrachelys* spp., one the size of a small car, and pygmy hippos *Hippopotamus lemerlei* were the prime herbivores of forests and grasslands. Most notable was the diversity of giant lemurs, including a giant aye-aye *Daubetonia robusta* and a gorilla-sized ground lemur *Archaeoindris fontoynontii*, while aptly named baboon lemurs *Archaeolemur* spp., koala lemurs *Megaladapis* spp., and the most peculiar of all, the sloth lemur *Palaeopropithecus maximus* with its outsized digits, inhabited the forest canopy or roamed the forest floors. Sadly, this spectacular megafauna has long since disappeared, and the authors provide evidence as to the probable causes. It appears that natural shifts in climate and ecological changes, as well as locally a major tsunami, were the main reasons, whereas the arrival of human settlers around 2,500 years ago probably accelerated extinction rates.

This book is written in a style that is not only scholarly, especially as this is the first time that all of this information has appeared in one place, but also makes for a fascinating read for the interested layman. For those who require their imaginations be satiated further, the book includes the incredible artwork of Velizar Simeonovski, a specialist in reconstructing past faunas and landscapes. Simeonovski uses the increasingly popular palaeo-art technique of drafting illustrations on a computer, which gives a sense of vivid realism. The only fault, in my opinion, with the colour plates is the random placement of species identification keys, which are of course important, but partly obscure the colour reconstructions. This certainly distracts from enjoyment of the paintings in their entirety.

For anyone wishing to understand the role of natural climate change and its effects on ecosystems, this book provides an important and conclusive story for Madagascar at least. It also shows the negative effects that humans have had on a native fauna that had evolved in isolation over the last 88 million years.

Julian P. Hume

Los Vertebrados Terrestres de Teno—Catálogo Ilustrado y Comentado

Beneharo Rodríguez, Felipe Siverio, Manual Siverio, Airam Rodríguez and Rubén Barone, 2014. Grupo de Ornitología e Historia Natural de las islas Canarias, Buenavista del Norte. 294 pp, c.300 colour photographs. Hardback. ISBN 978-84-616-8670-4. €20. Further details at http://www.gohnic.org/

Located in north-western Tenerife, the largest of the Canary Islands, Teno Rural Park comprises the Teno massif and surrounding areas up to *c.*15 km from Punta de Teno itself. This is an old volcanic massif with large coastal cliffs and a very rugged landscape. The book gives details of 264 bird species, 16 mammals and eight reptiles that have been found there.

The majority of the book (which is entirely in Spanish) is devoted to birds, with distribution maps for 51 species on a 2 km × 2 km grid. The monthly occurrence of 49 migratory species is shown using bar charts. The status of each species is described with references to further literature in many cases. This section includes 212 colour photographs, thus most species are illustrated.

Other sections discuss the relationships between some of the species described and there is a chapter outlining conservation threats to the area. Guidance is provided for visitors, suggesting sites that offer the best opportunities to view wildlife. However, sadly the Punta de Teno Peninsula is currently closed to the public except with special permission. Hopefully, wider access will be granted before too long. This will prove a useful book for anyone able to visit the area.

Keith Betton

Notes for Contributors

The *Bulletin of the African Bird Club* welcomes original contributions on all aspects of the birds of Africa, here defined as the area covered by Collar, N. J. & Stuart, S. N. 1985. *Threatened Birds of Africa and Related Islands: The ICBP/IUCN Red Data Book*. Cambridge, UK: International Council for Bird Preservation, namely continental Africa, Indian Ocean islands west of 80°E, e.g. Madagascar, the Mascarene Islands and Socotra; Atlantic Ocean islands on or east of the mid-Atlantic ridge, e.g. the Tristan da Cunha group, the Azores and the Canaries. Contributions will be accepted subject to editing and refereeing by independent reviewers, where appropriate. The Editorial Team will be happy to advise authors on the acceptability of material at draft stage if desired.

Submissions

Submissions are accepted in English or French and should be sent by e-mail to editor@africanbirdclub.org. All submissions are acknowledged. French summaries are required for all papers published in English, and vice versa. Those submitting papers should supply a summary for translation into English, or French, as appropriate. Unless a sketch map is provided as part of the article, place names should follow those on standard or readily available maps (preferably a recent edition of *The Times Atlas of the World*).

Style

Authors are requested to follow conventions used in the *Bulletin of the African Bird Club* and to refer to a recent issue for guidance. A detailed style guide can be obtained on request from the Editor.

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The role of the Representatives ABC Representatives support existing members by providing a local point of contact in their region and amongst other things: answer queries about the Club; solicit submissions for the Bulletin; arrange local meetings; recruit new members. They also have an important role in identifying projects that could benefit from the ABC Conservation Fund and candidates for the Supported Membership scheme.

Interested in becoming a Representative? We are seeking new Representatives in a number of countries. If you are interested in supporting and promoting ABC in your country please contact the Country Representatives' Coordinator (reps@africanbirdclub.org) attaching a CV and a statement of how you think you can develop the role. The Coordinator will be happy to provide further information if required.

Current Country Representatives

Ascension Island: Dr B. John Hughes, The Old Shop, High Street, Shipton Bellinger, Hampshire SP9 7UE, UK. E-mail: rasuk@btconnect.com

Australia: Phil Gregory. E-mail: info@s2travel.com.au

Austria: Graham Tebb, Graf Starhemberggasse 20/14, 1040 Vienna. E-mail: graham.tebb@gmail.com

Benin: Fatai Aina. E-mail: amafbenin@yahoo.fr

Botswana: Chris Brewster, PO Box 26292, Gaborone. E-mail: cbandog@gmail.com

Cameroon: Dr Taku Awa II, Cameroon Biodiversity Conservation Society (CBCS), PO Box 3055, Messa, Yaounde. E-mail: takuawa@yahoo.co.uk

Canada: Antonio Salvadori, 17 Colborn Street, Guelph, Ontario. N1G 2M4. E-mail: Salvadori@rogers.com

Canary Islands: Rubén Barone Tosco, C/.Eduardo Zamacois, 13-3ºA, edificio Ipanema, 38005 Santa Cruz de Tenerife, Tenerife, Canary Islands. E-mail: makaronesia68@yahoo.es

Comoros: Michel Louette. E-mail: michel.louette@telenet.be

Côte d'Ivoire: Lionel Sineux. E-mail: lionel.sineux@gmail.com

Democratic Republic of Congo: Byamana Robert Kizungu, Head of Ornithology Laboratory, CRSN-Lwiro, DRC, BP02 Cyangugu, Rwanda. E-mail: kbyamana@yahoo.com

Denmark: Uffe Gjøl Sørensen, Ovengaden Oven Vandet 68,2, 1415 Copenhagen. E-mail: contact@ugsorensen.dk

Djibouti: Houssein A. Rayaleh, Technical Advisor, Association Djibouti Nature / BirdLife in Djibouti, PO Box 3088, Djibouti, Djibouti. E-mail: naturedjibouti@gmail.com

Egypt: Sherif Baha El Din, 3 Abdalla El Katib St. Apt. 3, Dokki, Cairo. E-mail: sherif_baha@hotmail.com

Eritrea: Russom Teklay, PO Box 2926, Asmara. E-mail: teweledert@gmail.com

Ethiopia: Mengistu Wondafrash, Ethiopian Wildlife & Natural History Society, PO Box 13303, Addis Ababa. E-mail: m.wondafrash@ewnhs.org.et

Finland: Annika Forsten, Tornvalksv. 2 bst 15, 02620 Esbo. E-mail: annika.forsten@gmail.com

France: Bob & Françoise Dowsett, Le Pouget, Sumène, F30440. E-mail: Dowsett@aol.com

The Gambia: Solomon Jallow, c/o WABSA, Department of Parks & Wildlife, Management HQ, Abuko Nature Reserve, Abuko, PMB 676 S/K. E-mail: habitatafrica@hotmail.com

Germany: Friedemann Vetter. E-mail: africanbirdclub.de@gmail.com

Ghana: Samuel Kofi Nyame, PO Box KIA 30284, Airport, Accra. E-mail: samknyame02@yahoo.com

Italy: Giuseppe Micali, Via Volterra 3, Milano, MI 1-20146. E-mail: giuseppe.micali@bms.com

Kenya: George Were Eshiamwata, Dept. of Natural Resources Faculty of Environment & Resource Development, Egerton University, Njoro Campus, PO Box 536-20115 Egerton. E-mail: eshiamwatagw@yahoo.co.uk

Liberia: Moses A. Massah, Society for the Conservation of Nature of Liberia, Monrovia Zoo, PO Box 2628, Monrovia. E-mail: mosesmassah@yahoo.com

Libya: Khaled Etayeb. E-mail: khaledetayeb@yahoo.com

Madagascar: Dr René de Roland Lily Arison, Section Oiseaux, PBZT, BP 4096, 101 Antananarivo. E-mail: lilyarison@yahoo.fr

Malaŵi: Tiwonge Gawa, PO Box 31277, Chichiri, Blantyre 3, Malaŵi. E-mail: birdsmalawi@gmail.com

Mali: Mary Crickmore, Bamako Bird Club, c/o Mary Crickmore, Mission Protestante au Sahel, BP 2210, Bamako. E-mail: crwrcwamt@yahoo.com

Namibia: Tim Osborne, PO Box 22, Okaukuejo, vis Outjo 9000. E-mail: kori@iway.na

Nigeria: Phil Hall, A. P. Leventis Ornithological Research Institute, Jos. E-mail: philhall.obe@btinternet.com

Republic of Congo: Malcolm Wilson, 19 Esmerelda Crescent, Robindale, Randburg 2194, Johannesburg South Africa, or c/o Sanctuary IJG (Jane Goodall Institute), RNT (Reserve Naturale Tchimpounga). E-mail: shoebill1961@gmail.com

Rwanda: Claudien Nsabagasani, E-mail: rwandabirding@gmail.com

Senegal: Moussa Séga Diop, 191, Cité SICA de MBAO, BP 20077 Dakar Thiaroye, Senegal. E-mail: msediop@gmail.com

Seychelles: Adrian Skerrett, Maritime House, PO Box 336, Victoria, Mahé. E-mail: askerrett@hotmail.com

South Africa: Chris Lotz, Birding Ecotours, PO Box 215, Newlands 7725. E-mail: info@birdingecotours.co.za

Sudan: Abubakr Mohammad abd Alhaleem, Gabra Block 18, House No. 47, Khartoum. E-mail: justanaconda@yahoo.com

Swaziland: Dr Ara Monadjem, UNISWA, P/Bag 4, Kwaluseni. E-mail: ara@uniswa.sz

Sweden: Ulf Ottosson. E-mail: ottosson@pt.lu

Tunisia: Hichem Azafzaf, 11 rue Abou el alla el maari, Cité el houda, 2080 Ariana. E-mail: azafzaf@gmail.com

Uganda: Prof. Derek Pomeroy, Makerere University Institute of the Environment and Natural Resources, PO Box 7298, Kampala. E-mail: derek@imul.com

USA: Kurt Leuschner, 70065 Sonora Road #267, Mountain Centre, CA 92561.E-mail: kleuschner@collegeofthedesert.edu

Zambia: Frank Willems. E-mail: fwls01@gmail.com

Zimbabwe: Togarasei Fakarayi, Programme Manager, BirdLife Zimbabwe, PO Box RVL100, Runiville, Harare. Emails: toga@blz.co.zw / sylvia@blz.co.zw

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We are currently seeking Country Representatives for: Algeria, Angola, Azores, Benin, Burkina Faso, Burundi, Cape Verde Islands, Chad, Comoros & Mayotte, Equatorial Guinea, Gabon, Guinea-Bissau, Guinea Conakry, Madeira, Mauritania, Mauritius, Morocco, Mozambique, Netherlands, Niger, Réunion, Rodriguez, São Tomé & Príncipe, Sierra Leone, Socotra, Somalia, Spain, St. Helena, Tanzania, Togo and Tristan da Cunha.

Supported and Affiliated Membership

The Supporting Members scheme is a key part of the Club's strategy of encouraging the spread of knowledge and understanding of birds as widely as possible throughout Africa. The scheme enables Africans who would not otherwise have the resources to join, to become members of the Club. The scheme is funded by Supporting Members who pay a minimum of UK£30 to cover their own membership and the subscription of at least one African member. The money they contribute over and above their own subscription is placed in a special fund that is used to cover the membership expenses of African members whom they may have nominated, or who have been nominated by other Club members.

Although we have suggested a minimum of UK£30 to become a Supporting Member, any contribution is welcome. All members of the Club, even if they do not feel able to become Supporting Members themselves, are invited to nominate candidates for supported memberships. Candidates should be nationals of an African country, with a genuine interest in wild birds but without the resources to become members in their own right. Africans who think they may qualify are very welcome to put their own names forward, supported by a letter of recommendation from someone such as their employer, teacher or an officeholder in a local wildlife organisation.

The scheme now also includes clubs who wish to be affiliated with the African Bird Club in African countries where it is difficult for local individuals to become members in their own right. Clubs accepted for membership under the scheme receive up to six copies of each issue of the bulletin for circulation among their members. Instead of paying a membership fee, Clubs are asked to provide a short annual report on their activities that may be published in the bulletin. Clubs interested in becoming Affiliated Member Clubs are invited to apply to the ABC Secretary giving details of their membership, their constitution or a statement of their objectives and conditions of their membership, and their activities to date.

ABC Information Service

ABC offers a service to help members with information requests. Perhaps you are planning a trip to Africa and need local advice, or maybe you are in search of an obscure fact about an African species. The Club does not guarantee to find all the answers but will try to help. The service is free to ABC members. Contact: Phil Hyde. E-mail: info@africanbirdclub.org.

AfricanBirding e-mail discussion list

Launched, in October 2000, by the ABC and the Pan-African Ornithological Congress, AfricanBirding or AB, as it is known, has become a useful forum for those interested in African birds. To join the discussion, which averages 1–2 messages a day, send a blank e-mail to AfricanBirding-subscribe@yahoogroups.com. You will then receive an e-mail instructing you how to join.

The Club also maintains a list of members' e-mail addresses. This list is confidential and used only for Club purposes, e.g. for informing members of upcoming events and news concerning the Club. It is not divulged to anybody outside the Club or used for commercial advertising. At present it includes addresses for about 50% of the membership. Please send any additions or amendments to the Membership Secretary: membership@africanbirdclub.org.